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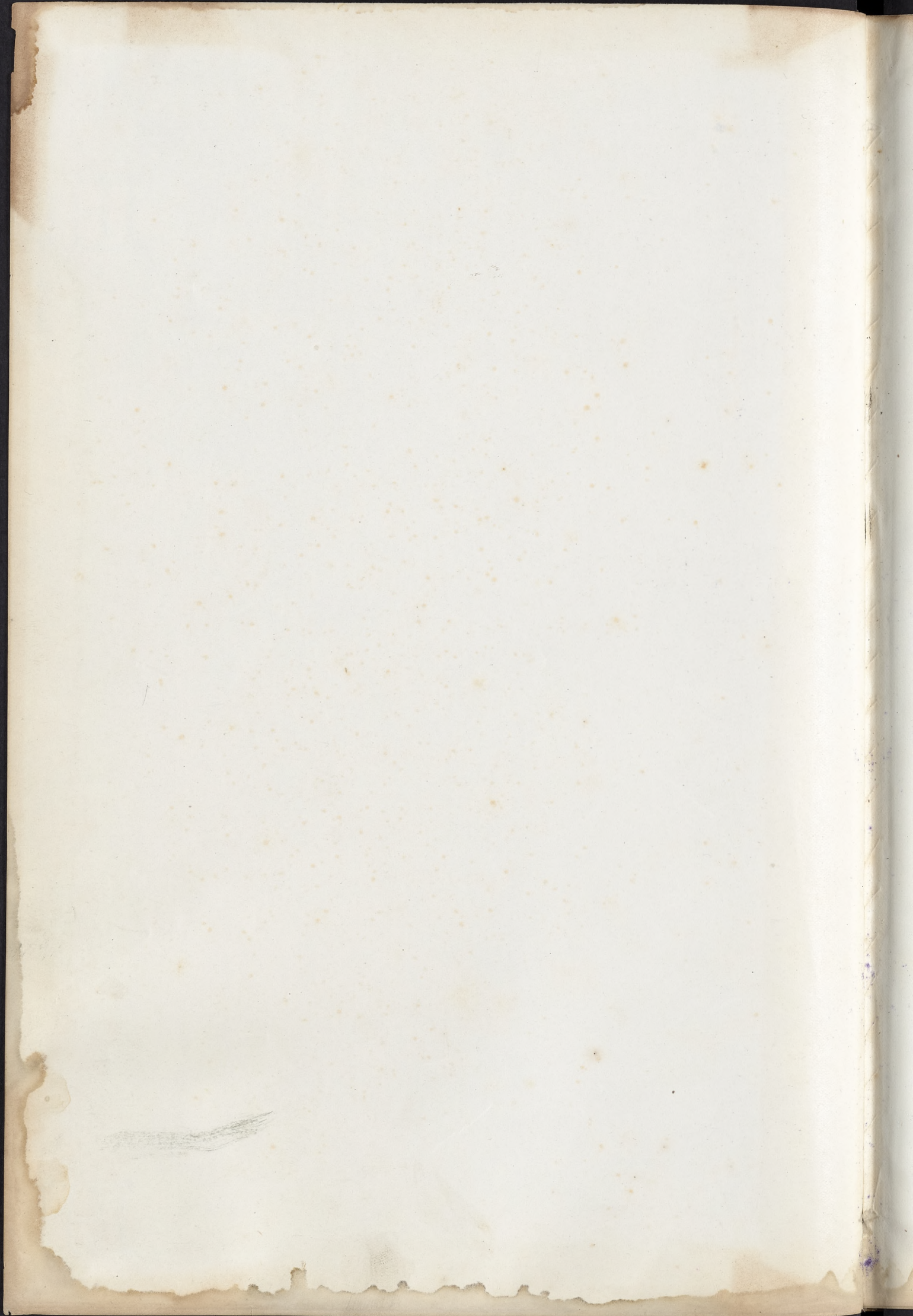
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VOLUME 44

IN THE SUPERIOR COURT,

State of California, County of Sacramento.

OCTOBER SESSION, 1881.

HON. JACKSON TEMPLE, - - - - - PRESIDING JUDGE.

WINFIELD J. DAVIS, OFFICIAL REPORTER.

SAMUEL OSBOURNE AND WILLIAM M. CUTTER, REPORTERS.

The People of the State of California,
vs.
The Gold Run Ditch and Mining Co.

COUNSEL:

For Plaintiff,

HON. A. L. HART, Attorney General, GEORGE CADWALADER, ISAAC S.
BELCHER, A. L. RHODES, RICHARD BAYNE.

For Defendant,

J. K. BYRNE, W. C. BELCHER, S. M. WILSON, W. T. WALLACE, A. B.
DIBBLE, A. P. CATLIN.

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In the ⁴⁴ Superior Court
 of the State of California
 in and for the County of
 Sacramento.

The People of the State of California vs.	} Morning Session Saturday Jan'y 21 st 1882
The Gold Run Ditch and Mining Company	

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G. D. Allard

Crops.

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John Bidwell

direct

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Winfield J. Davis
 Official Reporter

In the Superior Court
of the State of California
in and for the County of
Sacramento.

The People of the State of California	} Morning Session Friday July 21/82.
vs The Gold Run Ditch and Mining Company	

Testimony
of
E. J. Allardt
Cross Examination

Mr. Belcher. Mr. Allardt, speaking of
the Yuba you said that you found
14 per cent of the amount of the
material that had been moved
from the mines on the Yuba
still in its? and that 86 per cent
had been carried down the river,
if I understood you correctly?

A. Below Smartsville?

Q. Yes, below Smartsville?

A. Still in the river bed below

Smartsville?

2. ~~Below~~ Smartsville? ayes.

2. That you found the entire removal - movement of earth there to have been 176 millions of yards?

A. Approximately.

2. That included if I understood you correctly the Placer and hydraulic and all mining upon the Yuba and its tributaries?

A. No. That included all the principal excavations that I saw I think I saw the most of them.

The smaller excavations were not noted.

2. The smaller excavations were not noted?

A. Perhaps anything under 20,000 or 30,000 yards might not have been noted. Principally it was confined to the hydraulic pits, the large conspicuous pits.

2. Your estimate did include all the other mining operations upon the Yuba and its tributaries?

A. Very nearly all. All that I saw and thought were of any importance.

Q. I understood you to say in your examination that you had made a careful reconnaissance of the South and Middle Yuba and the stream of the main Yuba to the South ^{and} Middle Yuba, to the upper portion of its mineral belt?

A. I surveyed; not a reconnaissance. It was really an instrumental survey.

Q. An instrumental survey. Then it would include both?

A. Yes.

Q. It would include both a reconnaissance and a careful and instrumental survey?

A. Yes.

Q. And on the North Yuba in particular and that over much the larger and the important part?

A. A reconnaissance — I made a reconnaissance. I made no survey, that is an instrumental survey of the North Yuba but a reconnaissance of the upper portion where the principal hy-

-drainic mines were situated.

Q. That was a reconnaissance simply? A. Yes.

Q. And no survey? A. No survey.

Q. And measurement whatever?

A. Yes measurements of the pits, but no measurements of the river.

Q. No measurements of the river?

A. No detail measurements.

Q. That you did in about six weeks?

A. The river survey was done in about six weeks.

Q. The river survey was done in six weeks?

A. Yes sir.

Q. That did not include the survey of the mines? A. No sir, that was done prior.

Q. When was that done?

A. That was done a I think in July and August of that year.

Q. In July and August?

A. Yes.

Q. Of the same year?

A. Of the same year.

Q. When was the survey of the mines?

A. It was in Sept-

ember and October?

Q. September and October?

A. Yes.

Q. And in July and August you made the other survey? A. I did.

Q. That survey of the river was made by yourself, Mansen, and Von Schmidt? A. Jointly. Except

that Mr. Von Schmidt did not accompany the survey but to a very small extent. Mr. Mansen and myself were in the river for about six weeks, surveying in the bed of the river.

Q. You said that was an instrumental survey. What instruments?

A. A transit. A transit party and a levelling party.

Q. Did you have charge of those or either of those parties?

A. I had my assistant who was the transit man. I frequently used the instrument myself and sometimes the level. I was with the party myself all the time and Mr. Mansen and myself directed the survey - Mr Mansen and myself.

Q. Which, you or Mansen?

A. Well it was in consultation between us.

Q. Which had the direction, you or Mansen?

A. I can not say which had the greater authority. We had equal authority I suppose. Our object was to arrive at the facts in the most expeditious manner.

Q. I ask you who was in charge, you or Mansen?

A. Mansen was in charge of the party furnished by the State Engineer and I was in charge of my assistant.

Q. You had charge of your assistant and he had charge of his party?

A. Yes.

Q. How many did his party consist of?

A. It consisted of

the leveller —

Q. Out? I ask you how many simply?

A. Three, I think.

Q. This party consisted of three and yours of one?

A. Yes.

Q. You say you went to North Bloomfield?

A. I did.

Q. You say that the bank there consists of small stones of

sand and gravel. A. I did.
 Q. And you ~~meant~~^{meant} there the work-
 ing bank?

A. I said -
 Q. I ask you if that is what you
 meant?

Mr. Hurt. Let the witness answer the
 question.

A. I will ask you what you mean
 by the working bank?

Q. I mean the main bank in
 the channel. You understand ^{what} the
 main bank means, do you not?

If we have here a trough that
 has been worked off and they are
 working the bottom forward,
 you would understand what the
 main bank was would you not?

A. I would understand what
 you mean by that, yes. They
 were working in two places.

Q. I do not ask you that?

Mr. Hurt. I ask that the witness
 be allowed to answer the question.
 The witness. I will answer yes to
 that question.

Mr. Belcher. Now if you have any
 explanation to make, make it?

A. I have no explanation to make.

Q. What do you mean by small stones?

A. Small stones in a gravel bank, I mean the pebbles, up to the size of six inches in diameter perhaps.

Q. Six inches in diameter?

A. Yes more or less. Perhaps some of them may be a little larger.

Q. What would you say as to the weight of stones six inches in diameter?

A. About ten pounds if it is a spherical stone. I can not give it exactly.

Q. That is approximately?

A. I think ten pounds is nearly it.

Q. Now, do you understand you to mean that the main drift in that mine as they are moving forward ~~into~~ the channel, that the lower gravel there consists of small stones of the size of which you have mentioned and gravel and sand?

A. I didn't say that with regard to that drift. I said they were working in that drift; that it was heavier material.

Mr. Hunt - Well, now I want the counsel to let the witness answer these questions.

Mr. Belcher. When asked you in regard to the main drift along the line of the channel did you give me that as an answer and say that that was a description of it?

A. I did according to my recollection.

Q. Do you still say so? A. I said so according to my recollection.

Q. Do you still say so? A. Yes, Sir.
Q. Then why did you modify your last answer before ~~my~~ General Hunt made the objection?

A. I did not say the material was of a light nature or as light as that drift as in this high bank that I gave a sketch of.

Q. Did you say about small stone, gravel and sand applicable to the high bank or to the main drift?

A. It is applicable to the high bank.

Q. And not to the drift?

a. I think not. I think it is heavier. I think I said so.

Q. When you gave your answer on your direct examination, did you mean to have it understood and did you give that answer for the purpose of conveying the meaning that the main drift and the drifting and the working in that mine, was the removal simply of the small stone, gravel and sand and nothing else? Was that the purport of your answer?

a. That was not.

Q. You did not mean to have it understood?

a. No sir, I did not say so at all. I did not say anything of the kind.

Q. General Hunt says that you described that as being heavier material than that in the

Gold Run mine; did you so describe it? a. No, I think not. I think I said it was not so heavy.

The Court He said it was not as heavy as the lower strata in the

12715

Gold Run.

The Witness. Yes.

Mr Belcher. What do you say now about the main work, the main channel in the North Bloomfield, the lower gravel. Did you say that that does consist of small stone, gravel and sand, or not?

A. My recollection, as I said, was not very clear in that matter; but I think it was heavy material firmly cemented, running in the direction of the main channel.

Q. Heavy material and firmly cemented? A. Yes. That was my recollection.

Q. What do you mean by heavy material? A. Coarse material and firmly cemented, requiring powder to dislodge it from the banks.

Q. Then you did not mean that the stone there were what you call small stones, six inches in diameter?

A. Not in this channel that you speak of.

Q. You spoke there in one place

of the different deposits which you found? Ayes.

Q. From the top to the bottom? Ayes.

Q. One part of which you call blue and gray gravel?

Ayes.

Q. Is blue and gray gravel a proper designation to describe the main channel?

A. That was not in the main channel.

Q. You did not give a description then of the main channel. Did you or did you not?

A. I did not mean this main channel where they were working.

Q. Did that description which you gave, when you gave it from the top and bottom, apply as a description of the face of the main channel?

A. No sir. It is a description of the side of the main channel above the bedrock.

Q. Did you give any description at all of the face of the main channel?

A. Nothing

further than what I said about its being a heavy material, heavier than the other.

Q. When you say heavier do you mean that it would be composed of ~~the~~ little larger stones than the size that you found?

A. I mean it in a two fold sense: heavier to work and larger dimensions of material.

Q. What would you say about the dimensions in fact. You have stated that the larger stones in this are six inches in diameter having a weight of about ten pounds. What

do you say about the stones in the face of the main channel?

A. My recollection is not clear enough to say; only that my recollection is that they were coarser and heavier but I can not say as to size.

Q. When you went there you say you described that section and this is a description of the side?
 a yes from the side.

Q. Both sides or one side?

A. One side.

Q. Which?

A. The west side towards the hill.

Q. How near to the mouth of the tunnel or the head of the tunnel?

A. I can not say as to that but I think about in the middle of the pit.

Q. About in the middle of the pit?

A. Yes, lengthwise.

Q. Did you notice at that time to know that the claim along its length had been stripped for a very considerable distance, made in advance of the work?

A. Yes I think I said so. I say so now. It had. Not the entire gravel channel but the width of it several hundred feet.

Q. How long were you in that mine?

A. I was in it three or four times, an hour or two at a time — perhaps half a day. I do not remember without referring to my notes. I

ious in there a number of times.

Q. You were in there an hour or two at three or four different times? A. Yes.

Q. And that within what space?

A. I made a survey that occupied an entire day in the pit, a side survey of the pit — I think it required more than a day.

Q. About how far were these for instance of yours?

A. I can not say without referring to my notes. They were all in the summer.

Q. You made it in one section did you or did you make more.

A. I only made one section as a type — as a characteristic section of the side.

Q. Did you select there the highest part of the bank?

A. No sir. I think the bank is about uniform for some distance for a long distance each way.

Q. How long?

A. I can not tell you. Several hundred feet

probably; perhaps more.

Q. When you gave it yesterday did you mean to give that section as a fair description of that mine and the work that was being done upon it?
 A. I considered it a fair description of that bank. If the bank was worked that would be the material that would come down with it.

Q. I will ask you again. Mr. Reporter read the question.

{The Reporter read the question,}

The Court, The question was about the mine, whether that was a fair description of the mine?

A. Of that portion of the mine. Yes, I think so; when the material is washed down from the natural surface, and that was a very fair average.

Q. Of the present washings?

A. Of the present washings where they are washed from the natural surface down.

12721 Mr. Belcher. I will ask you

again if you intended that,
and if you now intended it, as
a fair description of the work
and all the work done upon
the mine - of the mine and
the work done upon it?

A. Heretofore or done hereafter?

Q. All the work to be done
and being done?

A. I do not and I did not so
state yesterday.

Q. You do not so intend it to be.

A. No sir. That depends entirely
on what direction they work.

If they continue in the main
channel where the ground has
been stripped the material will
be of a heavier nature. If the
work is on the side it will be
done as shown in my
section practically, 200 feet
above the pit.

Q. Don't you know that the
work is being prosecuted and
was then prosecuted in the
direction of the main channel?

A. In what part of it?

Q. Don't you know that what

you saw was right by the side of the rim rock, that the rim rock was right there?

A. I do not. I know on the contrary -
Q. Did you examine to see where it was?

A. I know on the contrary that the superintendent of the mine -
Q. Not what the superintendent told you?

A. Can I tell what the superintendent showed me?

Q. No sir. I asked you if you examined to see where the rim rock was?

A. The rim rock was at the bottom of this 220 feet pitching up.

Q. Was it at the ditch?

A. I did not see it at the ditch.

Q. Did you examine it to see if you could find it?

A. It was impossible to see it. It was covered up.

Q. Did you examine it?

A. I did not see it.

Q. Did you examine it?

Q. I could not examine it. It was covered with soil.

Q. Did you try?

A. I saw the slope at the bottom and knew it must run off a long distance.

Q. How did you know?

A. I knew by what I saw of the slope in the bottom.

Q. Did you go to the surface and make any examination to see where the rim rock came up?

A. No sir, not a critical examination. I was on the surface. I did not see the bed rock. It was all loose material on top. I could see that the rim rock would crop out a long ways back from the face of the mine in my judgment up towards the hill.

Q. What do you say ~~when now~~ about the favored workings of that mine in the direction of its channel?

A. I say now that at that time

they were working in the direction of the channel when all their pipes were working, in the direction of the blue gravel, in that direction. It was blue gravel of a finer nature than that of the 105 foot strata on the sides.

Q. How do you describe that gravel? A. I have described it.

Q. Will you describe it again? The Court In the main channel?

Mr. Belcher. Yes.

A. You must bear in mind it is two years ago and I must describe it from recollection. My recollection is that it was ^{of the} blue gravel type - boulders and small stones firmly cemented and not much sand.

Q. Now you speak of boulders - what do you mean?

A. Perhaps, I had better say cobbles.

Q. Very well. Use such a word

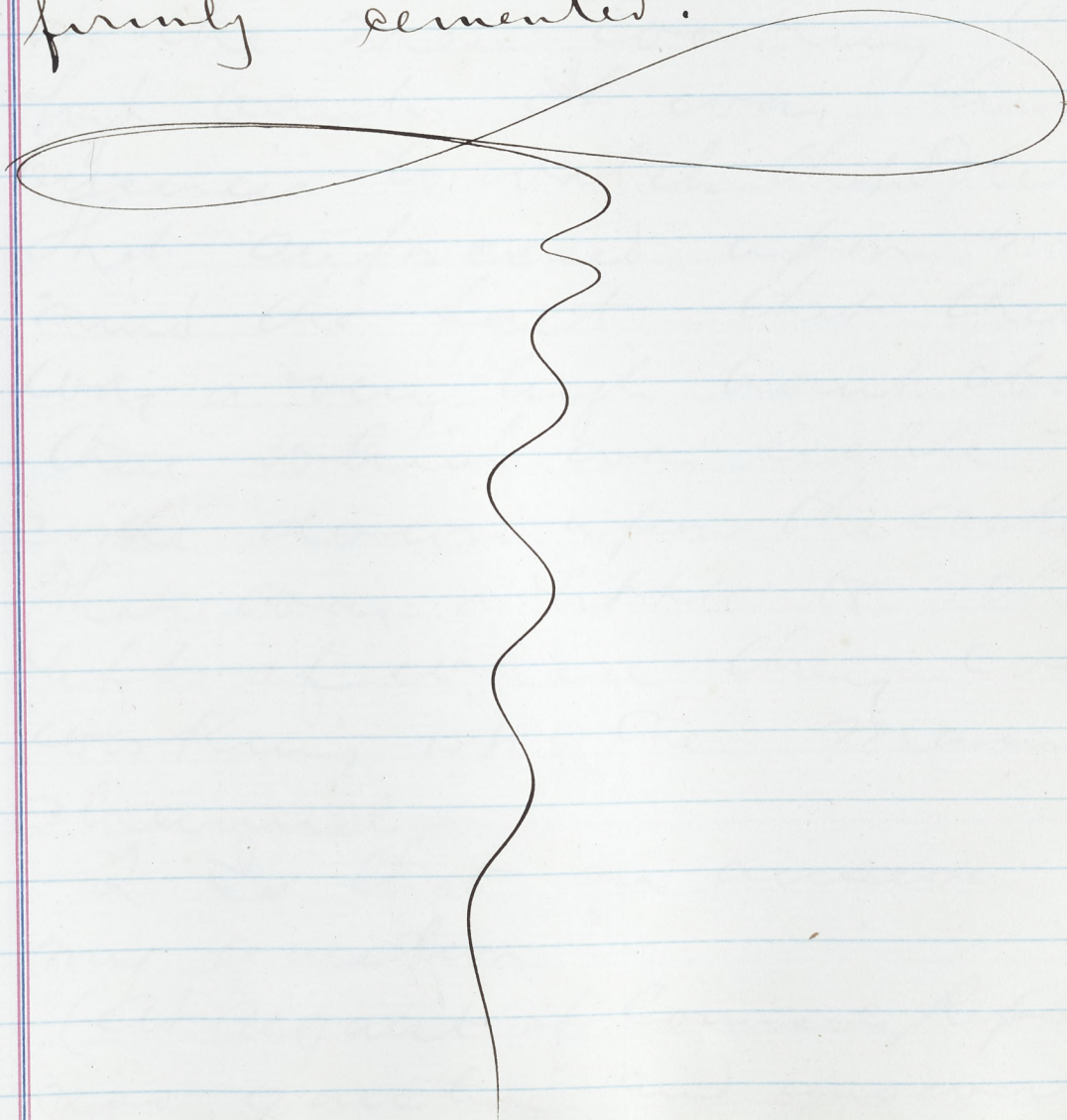
as you choose:

Q. Large stones a foot in diameter perhaps at the bottom there.

A. Do you mean that a foot in diameter was among the largest of the stones there?

Q. I would not like to state as to the size.

The Court. He says that it was coarser there and more firmly cemented.



Q. Were there at the time when you went in the mine a large number of men breaking up rock?

A. I saw a large number of men both on the west side against the high bank, and also at this point. And I recollect very distinctly of seeing one Chinaman whose duty it was to watch that the banks did not come down on the men working the high bank. It was his business to watch that solely. That impressed upon my mind the fact that there was a very high bank above there which was liable to come down upon the workmen. That was a little to the left of where they were working in the main channel.

Q. Is that an answer to my question?

(At request of Counsel, Reporter reads question and answer)

Is that an answer to the question propounded to you?

A I do not know whether it is a strict answer. It is explanatory.

Q Do you not know that it is not a direct answer at all? A No, I do not think I do.

The Court. If it is not an answer, let him answer and waste no more time. Witness I will endeavor to answer and follow the questions closely.

I Read the question, Mr Reporter

Reporter read.

A I think there were some breaking up some material, I do not know whether it was pipe clay or rock; I do not remember. It was pipe clay on the East side, I know, at the foot of this high bank.

Q Did you take any memoranda at the time, of the

number of men at work
on the face or near the face
of the claim?

A I did not. Not in what
you call the main channel
I did not

Q. Or have you any recol-
lection whether there were
men employed there or not?

A Oh yes. I think there
were quite a number of men,
I can not tell how many

Q Thirty? A I think not

Q You think not as many
as that? A I think not

Q Twenty? A It comes
as a guess, there might be
20. It was quite a large
number, it might be twenty

Q Did you notice whether
they were breaking rock
any of them?

A I do not remember
now whether they were or
not.

Q Or do you remember
whether they were blasting
rock? A They were

breaking up rock in some way. Whether they were preparing it by blasting or by sledges, I do not remember now — not at that point.

Q Did you see them engaged in the same kind of work at the side? A At the

side I saw them blasting pipe clay — about 30 Chinamen. I noticed it several days. About noon the blasts were fired off and it was a very grand effect, like a volley of artillery. That was done several times and I saw it.

Q That was on pipe clay?

A That was on pipe clay; they call it pipe clay.

Q They were not blasting boulders at all?

A I think not. It was pipe clay.

Q Did you see boulders there which would weigh one to five to ten tons? A I do not

12730 remember of seeing anything

of that sort. It did not impress me that way.

2 It did not impress you that way? A I am not impressed now from my recollection. I think not. I think the large masses there were pipe clay of angular shape, square shape, as it would come down from the bank.

2 Did you go to the Redrock mine of the Milton Company sometimes called the Birchville Mine, between Manzanita Hill and French Corral?

A I can not localize those mines, to say whether it was that certain mine, or not.

2 Will you look at that map, then, behind you, or at your notes and see whether you went there, or not?

Mr Hart. That plot is not in Evidence.

Mr Belcher It is so far in Evidence as that he has testified from it.

Mr Hart. He has not testified

from it at all
 Witness That is a profile
 shown on this map. I think
 I did not say anything about
 the Milton mine particularly.
 I spoke of Chanis near San
 Juan, Sweetland and Richville.
 But I do not know which
 of these is the Milton mine
Mr. Belcher You testified from
 a list which you had yester-
 day, handed you by Mr.
 Cadwalader. Did you per-
 sonally visit all the mines
 described in that list?

A I think I did.

Q Did you visit French
 Corral? A If it is on
 the list I did. I was at
 French Corral.

Q Have you any recollection
 whether you did or not?

A I was there certainly.

Q Have you any recollection
 whether you did or not?

A I did, I did certainly;
 I know I did.

Q Did you go to Richville?

A Yes.

Q. Did you go to Manzanita Hill?

A Yes.

Q. Now I find on this list at and near Burchville, Middle and South Yuba, a certain computation. Have you any present recollection of the mines at that point?

A. Not a distinct recollection at all.

Q. No distinct recollection?

A. Oh no!

Q. Have you it in your note book? I wish you would take your note book, and turn to it?

A. What is the

question?

Q. In regard to the Burchville Mines, the mines at and near Burchville?

A. (Arthur examines note book)

A. I have the Manzanita here, I see, mentioned

Q. Manzanita is one place and Burchville another?

A. Do you desire to know about Manzanita?

Q No, not yet. I am now asking about Buchville. I will come back to Manzanita presently. A I have a note of it here. I have a note about Buchville here.

Q What mines did you visit there? A I do not know the names of them. "Mines at Buchville". It is an old pit in my recollection.

Q The whole pit?

A An old pit.

Q And that was all you found at Buchville, an old pit? A Yes. I think it was right below Buchville a little way. I do not remember those localities. I am not prepared to say exactly about those localities.

Q What was the character of the bottom ground there?

A (Reading) "Large pit above Buchville. Material same as the last, ^{hard} and heavy."

Q What was the last?

A The last was "Milton"

Mining and Water Company
 Mangamita Still. " Let me
 see. In order to answer
 that I must read what I
 say about the last, that is
 previous to that

2. That is Mangamita hill is
 it? A Milton Mining
 and Water Company.

2. Where is this Milton?

A "The main pipe is tunnelled
 under the road, and through
 Mangamita Still and Emergas,
 from the face of the claim,
 about an altitude of 2,100
 feet. Monitor piping. Two
 other monitors are in place.
 I have reached bed rock. General
 material nearly all fine sand
 and sand, not much pipe
 clay. " And then in Buchville
 I see, "Material same as last,
 hard and heavy" I said: I
 suppose tuncaroni probably
 that means

2 What do you mean by
 that then? That the material
 at this last mine, at the

Richville mine was of light sand and gravel, but hard and heavy. Is that what you mean? And it seems from these notes

2. I am asking you now, if you have any recollection about it? A No, I have no recollection except what the notes say.

2 No recollection at all
A Not any distinct recollection. I would rather take the notes than my recollection.

2. Do you mean from your notes that you at that time described it, the one of light material consisting of sand and light gravel, and that the other consisted of the same material, but was hard and heavy?

A So I have stated here
2 That is what you meant?
A Well, I think that this note, Richville, must refer to something farther back

2. And not the last?

a. No. It is contradictory in itself. It would have to be examined. These notes are taken and they afterwards have to be arranged. They are taken as you go along. You can not read from a note book very well.

2. Then taking your present recollection, you would not describe the Clammi at Birchville, as being of light fine material? A My recollection is that the Birchville pit, was an old abandoned pit, with the general appearance of gravel pits - yellow. That at the Manzanita hill there was some material, of this blue gravel that they were working, the lower benches, that was heavy. And the other I think was about the same that is my recollection.

2 That was at Manzanita Hill.

A I think it was at
Manganita Hill.

Q You went there to those
places and those mines
to make a critical ex-
amination for the purpose
of being a witness, did
you not?

A Not a critical ex-
amination.

Q But you went there for
the purpose of making such
an examination, as that you
might be a witness?

A No.

Q You did not?

A Not for the purpose of ma-
king a critical examination.

Q I say, was it for the purpose of
being a witness? A No, I will
tell you what the purpose was.

Q I can answer that
yes or no.

}

Mr Sturt She can answer
in his own language
just as other witnesses
have done. I insist
that he be allowed to
answer.

Mr Becher I insist that
he shall answer yes or no
The Court He has answered
you, no, already.

The Witness The examination
was made for the purpose
of ascertaining approximately
the amount of material
that had been washed
out on the Yuba basin.
That was the main object.
Incidentally made some
remarks about the material
but it is not at all a
critical description of the
material; it is more as
to the amount.

Q As to the amount;

A As to the aggregate
amount in the whole
basin.

Q Under whose employment

did you make that examination? All under the direction of Mr. Cadwalader.

Q And under his employment? A I was paid by Mr. Soley who I think is the Treasurer of the Anti Slavery Association.

Q But you were employed by Mr. Cadwalader?

A I was instructed by him; general instructions to examine the subject.

Q Now was this map made from the result of this examination?

A The notes that I have made on that map were made from that — the result of that examination.

Q Did you make that map yourself?

A Not entirely. It was compiled, the framework of the map so to speak is a compilation of the United States surveys.

Q Who compiled it?

A A man by the name of

Von Leicht of San Francisco,
 under my direction
 made from what surveys?
 a From United States
 surveys.

And not from your
 notes except the memoranda
 which you find on the
 plat?

a The memoranda referring
 particularly to mines -
 let me see. It is a long
 time since I have seen
 this map <examines it>
 Yes. And the stations of
 the surveys are given
 along the rivers, the
 rivers that I surveyed;
 the stations, the altitudes
 and other notable objects,
 the bridges and so on

What instruments did
 you have with you for
 determining the measure
 of removal?

a I had a rope measure,
 a fifty foot rope measure,
 adjusted measure and

an aneroid and an angular slope instrument to measure slopes

Q That was all? A That was all. No attempt at any very accurate measurements but near enough for practical purposes I suppose

Q Well now when you went to those Birchfield mines or those Manganita Hill mines what measurements did you take in order to arrive at quantity?

A I think I estimated it in that case

Q Made an estimate, an eye estimate?

A No, not entirely. From walking, timing myself and various ways

Q Did you have a stop watch to time yourself with?

A It does not require a stop watch for that purpose

Q You timed yourself? A Yes

Q. What else?

A Found how long it took to pass the pit, which gave me the length of it. And then I judged of the width of it and the depth of it. It was all a matter of estimate.

Q And rather, loose estimate.

A Not at all accurate. It is impossible to make an accurate estimate of these pits, even if you measure them with the greatest accuracy because the surface ground is gone and you have to guess at that. It is an approximation.

Q That was the kind of measurement in all these mines was it?

A No. The larger mines, as the Bloomfield I made more detailed measurements of.

Q. In any other mines except the Bloomfield?

Alges, in the Columbia
 Still and Relief Still I
 recollect I made measure-
 ments and at Moore's
 flat and at many other
 places I measured pits
 and that served as a
 standard in a great
 measure to compare
 other pits with

Q What was the depth
 of the main channel in
 the North Bloomfield, or
 of all their works?

A Depth from what
 point?

Q What do you under-
 stand by depth of works?

A I understand it might
 mean the depth below
 the original surface - of
 the bed rock below the
 original surface

Q That it might mean
 that? Alges

Owll That is not what I
 mean A I do not
 understand you then

Q. I ask you what was the depth of their work at that time?

A. Of the depth of the face of the bank do you mean?

Q. The average depth of the entire excavation that they were making, that the Company were making at that time? You saw what they were doing?

A. I saw what they had done. There were depths varying from 50 to 250 feet there were all varieties of depths there - a very irregular pit.

Q. It was from 50 to 250 feet? Ayes, perhaps 300 I don't remember exactly.

Q. Perhaps 300 possibly?

A. Possibly, 250 I should think.

Q. What did you assume as the average?

A I do not know. I do not know that I assumed an average. I computed

Q Then how did you make your calculation as to the quantity moved?

A I plotted it and took several cross sections at various points from my notes.

Q Have you got those in your note book?

A I think I have

Q Will you turn to them and let me see them

A <handing note book> They are in detached form but they are here. There is a plan of one of the pits. There are the cross sections, there is another one.

Q I find this in your notes: "Approximate contents of mine work Bloomfield pit 108 acres average 89" with a little mark by the side of it which I

presume means feet Am
I correct in that?

Aljes

Q "89 feet deep October
21st 1879" Was that the
memorandum from
which you made your
figures as to contents?

A I would have to look
at it.

Q At the bottom of the
left hand page.

Witness examined?

A Yes. The result - the
89 feet was the resulting
average of all these cross
sections I presume.

Q Then do you mean
that 89 feet is the average
depth, or was at that
time?

Aljes approximately
of what I call the entire
pit from one end to the
other. Not of the present
 workings. The pit extends
a long distance

Q That was the average
of the entire pit?
working

As was the result of my measurements at that time

Q Then 220 or 250 feet would give no idea at all or correct one, of the work there would it? A Yes I think it would because that is on the side towards the mountain.

That on the side towards the creek is much less high and it possibly might make that average of 89 feet. The fact of 89 being the average would indicate that there must be a large area that is a greater depth than 89

Q And there must be a large area which is a much less depth?

A Yes. I just stated so; that it had on the East side toward the Creek

Q Then that 200 feet expressed would not convey any proper notion or idea of the amount

of work to be done there
or that had to be done,
would it? Ah yes,
the banks are there
visible for a long distance.

O I will ask you this
question then: If I go into
a pit that is either to
be worked but in such
condition that I can
examine it, or that has
been worked, and I
find that in one place
the bank is 200 feet and
at another it is 20 feet and
at another it is perhaps
300 feet, and I am asked
to estimate that bank
and I say that the bank
is 300 feet high would
that convey any idea
to you by which you
could make a comput-
ation?

Mr. Sturt I think that
question is immaterial.

The Witness Oh no, I did not attempt to convey an idea on that question at all

Mr Belcher Q Is it not true that the only proper description which you could give on that would be to give the area and the average height?

A If I was called on -
Osuttig I ask you if it is not true that that would be the only description that one could give that would be intelligible to anybody who should listen to it?

A If I was called on to give a description from which the amount of material in the mine and its dimensions could be understood, which should convey to the hearer the size of the pit and the amount of material it would be necessary for me to give him the heights of the banks on each side.

Q Would the heights of the different banks on each side when you had determined the Average Convey any accurate information?

A Yes On each side. When I give the height on each side and deduce the average from that, that would give him a very fair idea of the size of the pit.

Q Wouldn't it be a fair inference from your testimony yesterday that the bank to be worked in the North Bloomfield Mine was 200 feet high?

A One part of that work, at one point where they are working it was that and it would be a fair inference.

Q Did you mean to convey the idea by your testimony yesterday that the bank remaining to be worked in the North Bloomfield Mine was 200 feet high?

A I did on the east side.

Q Did you mean that for the height?

A Not for the entire mine I did not say so.

Q Did you mean yesterday in your testimony to give what you yourself considered a fair description of that mine?

A I was not asked to give a fair description.

Q I asked you if you meant in your testimony to give a fair description of that mine?

A I want to explain that.

Q I want you to answer it first.

A No.

The Court He says he was not asked to give a description of the mine. He has answered your question.

A I was asked to give the height of the bank and I did so. The questions were detached and I answered the questions as they were put. Now if I had been asked to give a fair description of the mine. I would do so — I could do so but I was not asked that question.

Q Did you give in speaking of the height of the bank the highest bank that you could find?

A No sir it was nearly the highest as I say I think there were some banks nearly 300 feet high. This was 220. It was a fair type of the high bank of that mine which extends for a large distance up and down the pit.

Q Did you measure any bank there that was 300 feet high?

A Yes I believe I have it in my notes there.

Q Did you measure the height of the bank that you gave as 220 feet?

A I measured by the Anaroid and by some triangulation.

Q By the Anaroid at the top and bottom?

A Yes sir.

Q Am by triangulation?

A Yes sir.

Q Whose triangulation did you make?

A Rude triangulation by measuring a base and taking a height by means of a protractor or angular instrument

Q What kind of angular instrument did you have?

A What is called a protractor, an angular protractor which gives angles.

Q So you mean that measures angles accurately?

A Approximately.

Q That only approximates it is a very rough one too isn't it?

A Not very.

Q At a short distance?

A At any distance. It depends upon the accuracy of the observer. It is not rough.

Q A measurement by triangulation measuring your base with a rope and your angles with that kind of an instrument would be a very rude approximation, wouldn't it?

A Not very, no I do not think that we would be over in that

220 feet perhaps over more than five or ten feet.

Q You might be out a great deal more?

A No sir I think not, nor a man that has experience in those matters it is a very simple process.

Q Now did you see the tunnel through which they were working at the North Bloomfield?

A I saw the lower end of it. I saw the Shaft, one of the shafts in the pit but I do not remember the particular locality where the water was running through.

Q You saw what they were putting into the Channel?

A Yes sir.

Q You saw it as it came out?

A Yes sir.

Q What kind of material did you see coming out?

A Very muddy water highly charged with sediment, debris, Tailings,

Q Anything else?

A I did not see anything else coming over, I heard coming over rocks and boulders or not boulders but cobbles rolling along, I have heard them, the stones.

Q Was there anything else besides cobbles?

A Cobbles gravel and fine material, that is all I noticed.

Q When you speak of cobbles what do you mean?

A When I speak of cobbles I mean a stone the size used in street pavements.

Q That would be about six or eight inches in its longest diameter?

A Hardly more than six perhaps more.

Q What do you mean by a boulder?

A I mean a much larger stone than that a boulder would be a stone larger than a cobble and might be any size, ten feet in diameter or 20 feet —

Q Well do you mean that cobbles and boulders will include all classes of rock above gravel or do you make some intermediate description?

A No I think if an intermediate description is made it should be given in dimensions - I know of no distinct appellation.

Q Do you mean to include all sizes of rock above gravel when you speak of cobbles and boulders?

A Yes sir

Q Anything then that was larger than six or eight inches in its longest diameter you would call a boulder?

A I think I would yes. - I would call it a boulder.

Q And a large boulder might be many feet in diameter?

A Yes sir

Q Twenty feet or more?

A Yes sir - ten feet I think 20 feet is rather unusual.

Q Twenty feet would be unusual

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A Yes sir I think so

Q But if you had found a rounded rock 20 feet in diameter what would you call it?

A I would call it a very large boulder, an unusually large boulder.

Q And if it were a foot in diameter what would you call it?

A I would call it a boulder. The nomenclature is of course indefinite in size, the proper way is to give the diameter of the stone.

Q Would that be large or small, a foot in diameter?

A That is merely a relative expression. It is large compared with a pebble and it is small compared with a boulder ten feet in diameter.

Q Well I am speaking of boulders, I ask you if you would call one that was a foot in diameter a large or small boulder?

A I would call that a small boulder.

Mr Sturt I object to that
Mr Becher If it were 2 or
 3 feet in diameter would
 it be large or small?

Mr Sturt I object to that
 A It would be a respectable
 sized boulder

The Court He is trying to
 find out what his testi-
 mony means.

Mr Becher Would you
 call that large if it were
 3 feet in diameter?

A I would call it a very
 large boulder if it was in
 a mine and had to be
 removed - a very large
 unwieldy affair 3 feet in
 diameter

Q Were you in the French
 Corral mine?

A I do not remember

Q Or a mine at French Corral

A I do not remember.

I saw them; I do not
 remember whether I was
 in them or not.

Q You say you were in

the mine at Manganita
Steel? Ayes sir in the
mine or on the bank -
I saw it

B. Didn't you in both
those mines see boulders
that were many times
larger than 2 or 3 feet in
diameter?

A. My memory does not
serve me in that matter
it may be, I would not say
that it is not - I cannot say.

B. Don't you know as a
matter of fact that
boulders more than 2
feet in diameter were
while you were there, at
the North Bloomfield mine,
carried through these flumes?

A. I do not know that as
a fact

B. Didn't you in reading
your notes say that large
boulders were carried
through that tunnel?

A. I may have said so.

Mr Start Let the witness see his notes

The Witness I may have said so.

Mr Belcher I will read from the notes or you can see them

Mr Start If he is to testify I insist that he shall see the notes

Mr Belcher <reading> "Large boulders are brought through the tunnel which can be heard constantly pounding against the sides of the flume rolling along its bottom" - look and see if you wrote it? Ayes

Q Was it true when you wrote it?

A I do not doubt it. It is the result of my observation and information at that time

Q- After having looked at it I wish you would return the book to me again?

A- It is so written (referring)

Q- That was the result of your then observation was it?

A- Yes Sir that is to the day I heard them I did not see them; I could not see through that muddy water. I judged they were large boulders, large stones

Q- Could you see them after they had been thrown out - could you see them then?

A- No Sir the water was so muddy and you could see nothing but the muddy water.

Q- Not even on the dump?

A- The dump was two or three miles below.

Q- Did you go to it?

A- Not at that time.

Q- Did you at any time?

A- I did, I saw the dump several times.

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Q- Did you then see boulders

there?

A. I do not think I saw boulders two or three feet in diameter on that dump. It was smaller material.

Q- Did you see anything that you would call large boulders there?

A- No Sir, I did not.

Q- Then when you wrote this it was a matter of your ~~imagination~~ which was governed by your ear.

Mr. Hart That is not imagination.

A. No Sir certainly not. I heard them and a person could ^{not} judge of the size of material when it is running in muddy water by the noise it makes but still he could judge something.

Q- What I want to get at is, why you at the time on the ground wrote "Large boulders" - I want to know whether it was a matter

of your fancy guided only by your ear in hearing it knock against the sides of the flume or whether you had some more definite information?

Mr. Hart I object to that on the ground that a thing heard by the ear is not fancy.

A- I had no more definite information than I stated

Mr. Belcher Nothing but your ear?

A- Nothing but my ear.

Q- I find this memorandum also with reference to the North Bloomfield Mine

"At present are working upon the blue gravel channel which is north west of the Malakoff" What is the Malakoff?

A- That is the hotel.

Mr. Hart I do not wish to limit them but the examination is becoming very extended. I do not re-

remember that this witness was examined as to anything excepting the character of the material in the bank and the amount of material thrown into the stream and the amount that remains there. Now they are examining about innumerable things that had no reference to that.

The bank This is as to the material in the bank I suppose all of it.

A- It is a hotel called the Malakoff on the east side of the general pit, that is my recollection.

Q- Well now when you speak of the blue gravel channels there you are on the main channel?

A- I do, the one that I spoke of yesterday. I mentioned that fact yesterday in my direct examination.

12869 Q- And what was the height of that bank?

A I can only speak from recollection. I made no note of it. I think 40 or 50 feet something like that. I am not positive about it.

Q Does not that bank, both as to height and as to character of material describe the work remaining to be done in that mine that was remaining to be done at the time you were there?

A It certainly can not. No Sir very far from it. It describes the material if they gouge out so as to spear the main channel - follow the main channel in a northerly direction where the top material has been washed off.

Q How wide is the surface stripping there, how wide has that been stripped?

A Varying widths, some place I suppose 500 feet some places a thousand.

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Q Is it not a mile?

A- A mile wide?

Q- Is it not a mile, the stripping?

A- No Sir.

Q- A half a mile?

A- No I think not, My crosssection would be a better guide in that respect than my memory.

Q- Did you make any cross-sections of the country stripped?

A- No I made no measurements.

Q- Then if you made no cross section-

A- (Intg) Oh, of the entire country stripped?

Q- I mean in this ruin, in advance of the deep work that had been stripped?

A- Yes Sir there is a cross-section in my notes.

Q- Will you turn to your notes and find it?

A- At the upper end I have here the crosssection 35 feet high on one side

and about 150 feet high on the other side, the west side, and the width at the bottom is about 650 feet and at the top would be about 700 feet. There is another crosssection here

Q- Is that crosssection in the pit or on the surface?

A- That is in the upper end of the pit?

Q- In the upper end of the pit?

A- Yes in the northern end.

Q- I am asking you about a crosssection in the stripping above, in the first place you say here there has been early mining that has stripped off the upper workings?

A- Yes Sir

Q- Now did you make any crosssections in that?

A- Yes Sir, This I take to be the amount of cross-section from the original surface down, to the present surface

2- ~~Is~~ that a crosssection of the original work- did you make any crosssection going above the point where the Company were then at work on the top gravel, the blue gravel and made a section of the earlier workings? A- Yes sir. This is one of them there are three given above that point.

2- Very good let us have one of those? This is one that ~~was~~ taken in the deep blue gravel?

A- No sir this is one ~~that~~^{as} taken north of where they were working at the upper end in the direction that they were working. They were working towards this point- in fact I see it is near a pond or reservoir this section at the upper end; that describes it perhaps a little better.

2- With the bank 25 feet?

A- The lower bank 25 feet

and the upper about 150

Q- Twenty five feet on the east and 150 on the west?

A- About.

Q- And with the width of 650 feet on the bottom and 700 feet on top?

A- Yes Sir

Q- That it is one section?

A- There is a section I forgot to state near the end which is a small section I had better give it, it is 240 feet wide.

Q- That is near the end of the pit?

A- This covers this section I have just mentioned.

Q- Near the end of the working, the excavation?

A- Yes Sir.

Q- The upper or lower end?

A- The upper end towards the town of North Bloomfield. It was the upper end, it was where they had worked and excavated the ground long ago - old work

2. What I want to get at is this & illustrating by pencil sketch & say this is the line of the Channel, now we will suppose they have worked that far from the lower end. Now whereabouts comes it be?

A They were working in that direction - here is the large pit, the large excavation & referring

2. That is the Surface Excavation? after this.

These cross-sections I am giving them north of where they were working. They are working toward it, but over the higher Elevation

2 Now what I want to get at is this; you have given one cross-section here - where is that cross-section that you have given. Suppose that this be the lower end of the work and this is the upper end that they were working at the time you were there following along the main channel

The Court, The outside line is supposed to be the outside line of the surface washing?

A Yes sir. Then the cross-section that I have given was here (showing) The present workings have not reached that point by a great many hundred feet

Mr Belcher The first cross-section that you gave?

A 240 feet wide at the bottom do you mean?

I You gave me as 600 feet

A That is the next one. That is a distance of 900 feet from the first.

I Where was the first one with reference to the upper end?

A Well, about 100 feet, very close to the end — you may say at the upper end — it is 100 feet where the cut had attained that width and then 900 feet below that point is the cross-section. I have mentioned 600 feet wide at the

bottom. Then 400 feet below that section again another transverse section was made 1380 feet in width. Another section 300 feet below that, 900 feet in width. Then the pit becomes narrower — not much narrower, the pit 700 feet further is about 800 feet wide, a little narrower, that does not quite reach the present workings. I think it is some distance to the blue gravel workings.

Q Now in making your computation here you give 500 and 300 and 400 and 100 — what are those that you add together? A Those are stations in the different cross sections — merely stations

Mr Stark. The witness in this case refers to notes to refresh his memory. I do not understand that they have the right to take his book and rummage through it and examine

Anything else but that to which
he makes reference in his tes-
timony

The Court. I think not. It
is a matter between him
and the witness and I
suppose ~~we~~ have nothing to do
with that if the witness
does not object to it

Mr. Hart. On his behalf I
do object to it. It is
a matter that will be
used hereafter in other
cases. I understand
that they can examine
him with reference to
those matters to which
he has referred to the
book to refresh his
memory and no more.
This is a book full of
notes possibly of matter
referring to other ca-
ses.

}

The witness - They are detached notes made in the field.

The Court - Are there any other mines included there except on the Yuba River?

A - I think not.

Mr. Hart - The point we make is this: that the witness has refreshed his memory only as to a mine or two.

The Court - I understand that all of his testimony was from his notes in that book as to the contents of the pit.

Mr. Hart - His statement was from this memorandum that he made for the State Engineer's Department. He testified to the amount of material taken out from that.

The Court - There is no doubt but that they have a right to make him produce the book.

Mr. Hart - But I do not think that they have a right to examine him as to private memorandums.

The Court - I understand these are notes that he made at the time and that all his computations are made

from them.

Mr. Hart - It is not what may be made a matter of a legal objection I know but I think the examination is improper.

Mr. Belcher - Where is your description here of French Corral (handing book to witness) in your notes as to French Corral and as to the Manganita and the American clause?

A. French Corral at page 87. Birchville 87 and 88. Manganita 85.

2. Now the American?

A. The American Mining Company is at page 82.

Mr. Hart - If counsel desire to take a copy of that book he certainly can make it on the outside. I have no doubt Mr. Allardt will give it to him.

The witness - Certainly, with pleasure.

Mr. Belcher - I am at present engaged in some other work than that. Now I want to ask you again in regard to the average along the entire width of this stripping and that which has been stripped,

what is the average height of the bank to be worked?

A. What mine sir?

Q. In the North Bloomfield.

A. Yet to be worked?

Q. Standing in front of you or as you saw the front of it the face of the claim?

A. I think I can get it from the notes. I think the elevations are given there approximately.

Q. I want to know the elevation of the claim from the bed-rock to the surface remaining on that face of the claim?

A. That it seems to me involves what is to be worked.

Q. I am not asking you about the quantity at all. I am asking you simply now - you have got the face of the claim and we draw a line across it. Say this represents the width of the country that has been stripped and this then is the width of the claim. Now in the center of the channel what was the height from the bottom to the top?

A. Right at the point where they were working?

A. In the center.

The Court. In the center of the channel?

A. I am not able to give that.

Mr. Belcher. What was the average height?

A. You mean in the face - the face that they were working at that time?

Q. I mean, taking from one edge of the claim? This is the outside and that is the outside of the claim and they have been working up against it.

A. Yes.

Q. Now whether it were in the form of an arc of a circle, regular or irregular or whether it was square across, I want to know what was the height of the bank in the center or the average height from the one side to the other?

A. Yes.

Q. Of the bank?

A. I thought perhaps I had some other notes of it; I cannot tell you.

It is considerable. It might be fifty and it might be one hundred feet

high. I do not know. The sides right in the channel at present were not so high because it was stripped off but the sides were of an immense height. As I say they were coming in upon the workings, liable to come in upon the work. I do not wish to give any figures or anything indefinite. If I can help it.

Q. Did you then make any memorandum or any estimate as to the grade of the channel so far as it had been worked?

A. No.

Q. As to the slope from the center of the channel to the sides at any time?

A. I saw the slope.

Q. But you made no estimate as to the degree of the slope?

A. No sir.

Q. Did you make any estimate or any careful observation of the slope of the channel where it had been worked above?

A. I think there is a note of that here in this cross-section. The transverse slope of the channel I presume you mean - the trough?

Q. I mean following up the trough what is the grade, if you know what it is or did you make any comparison of the grade above and below the point of working? You may say that you did or did not.

A. I am looking to see if I can find anything on that subject.

The Court - Is there enough in this to warrant this minuteness.

Mr. Belcher - I think there is. The witness has made computations as to the quantities and I would like to get at the basis of his computations.

Mr. Hart - You can put the books in evidence.

The Witness - No. There is nothing definite on that point. That was not necessary to compute the quantity.

The Court - I do not see anything important in this matter for either side. I do not think it is of very great consequence.

Mr. Belcher - At the American mine how did you find the bank there?

A. I will have to refer to the notes.

Q. Did you find boulders there? You can look at your notes sir if you

please.

A. I state here, "a great many cobbles and boulders in the pits." This is continued on page 85.

Q. Is it true that in that pit at least $\frac{5}{6}$ of all the material that was being worked when you were there was rock?

A. Boulders?

Q. Larger than a man's head.

A. No sir. Judging from these notes I think not. There is something here that I did not read. You asked me to read one particular place here.

Q. I will ask you now according to your recollection if $\frac{9}{10}$ of all the material in the face of their claim and that they were then working upon was not boulders and if $\frac{9}{10}$ of the men employed in the claim were not then employed in breaking up rock so as to get it of such size that it would go through or pass through the flume?

A. I will not testify from memory when I have a book with me. I could only refer to the book. Where I have seen one hundred mines I can

not distinguish between one mine and another after two years, rely on the book only.

< The Reporter read the question >

A. < Reading > "One monitor piping against blue gravel -

Mr. Belcher - < Interrupting > Will you answer the question after referring to your notes?

A. I am answering the question by these notes.

Q. Read your notes and then reply. Answer the question after you have refreshed your memory.

A. The notes say: "a great many large cobbles and boulders in the pit, the banks blue gravel."

Q. Do either your notes or your recollection furnish you anything by which you can tell us whether the larger proportion of them were employed in breaking up boulders in that claim to reduce them to such size as that they may be carried through the flume?

A. No Sir, my recollection would not serve me at all.

Q. Neither your recollection nor

your notes?

A. No, sir, not as to the character of the material.

Q Will they serve you as to the Manzanita, either your notes or your recollection?

A. Those notes were not made for that purpose. They are merely made to indicate quantities as I said before those notes are merely incidental. You said the Manzanita?

Q The Manzanita?

A No.

Q Or at French Corral?

A. They are working against the blue gravel. In some places the upper material to a depth of 30 or 40 feet has been washed off.

Q What is the character of the lower gravel, of blue gravel?

A. It is not given here sir. Hold on - "full of cobbles down to bed-rock," "full of cobbles down to bed-rock."

Q Is it not full of large rocks?

A. It is not stated here.

Q I am asking you for your recol-

-lection?

A. I can not state it from recollection.

Q. Have you any recollection in regard to any of those claims?

A. It is indistinct. It has not impressed itself on my mind - that portion of it.

Q. Have you any recollection of the number of men employed in the mine; whether it were considerable or small?

A. In the French Corral.

Q. The French Corral?

A. No.

Q. You have no memorandum at all even of the number of Chinese employed?

A. The only memorandum I have under that head is some Chinamen operating in it. That is all I see about men. The Milton below and adjoining the above claim - the Milton Company is at work at present (reading) calking their flume and breaking up matter. Three Monitors in place to use in the blue gravel banks. Pit about 80 or 100 feet deep and two thousand feet long.

Q Do you not know Mr. Allardt and is it not notoriously the fact that more than one half of all the expense and labor in winning the blue gravel is getting rid of the boulders?

Mr. Hart - I object to that. it is not in cross examination.

The Court - It is perhaps in reference to the character of the material.

Mr. Belcher - Yes, sir.

A I am not a practical hydraulic miner. Undoubtedly that adds very much to the expense, the size of the material particularly if denicks have to be used.

Q At the American Mine did you notice any denicks?

A - No, sir. I did not.

Q Or at the Manzanita?

A. I do not think there were any denicks in that part. I have not any recollection. I have seen denicks in other mines but I do not think I have seen any there.

Q Did you notice them at the Birchville mine?

A - I do not remember.

Q Your recollection is very indistinct

in regard to any of these mines?

A. Yes on certain points - on the point that you now ask me.

Q. Have not you seen in some of those mines and yourself examined so as to determine that 9/10 of all the material taken out from the bank was rock?

A. No. I do not recollect a single bank that has that appearance, where 9/10 is rock. That would be almost solid rock or a solid ledge.

Q. Well at the American and at the Birchville does not it come pretty close to that?

A. I tell you that I can not testify on that point. It would have impressed me I think if there were 9/10 rock, I think it would have impressed me rather forcibly.

Q. In describing the North Bloomfield you spoke of cemented boulders. First eight feet of deep soil. That was on that near Millin?

A. On the West side

Q. And next cemented boulders?

A. Yes.

Q. Eight Feet

A-Yes.

Q Did you examine this so as to determine that there was any cemented boulders there at all?

A-I examined it only by the eye.

Q At a distance from the bank?

A-At the foot of the bank or a little west from the foot of the bank.

Q Did you ever in any mine that you have ever examined find within 16 feet of the natural surface cemented boulders, unless this were an exception?

A-Yes.

Q Where?

A-In the old workings of the Isold Run pit, of the old pit. It is almost universally the case for two miles along that pit below six or eight feet of the soil there is a layer of boulders which are cemented - not boulders, I did not mean boulders but cobbles and gravel, what is technically known as gravel.

Q Whereabouts at Isold Run did you notice it?

A-I noticed it at the Isold Run Company's ladder or the Excelsior ladder.

I went up those ladders and found the material was very hardly cemented.

Q. I would like to have you fix it at some point?

A. That is exactly the point.

Q. At the ladder of the Excelsior?

A. Yes, and at the ladder of the Gold Run where the three pipes come down. I had a photograph taken of the place.

Q. And at this point you found cemented gravel within 16 feet surface.

A. I should say less.

Q. And that on the side of the hill.

A. It was gravel that was cemented together.

Q. I am asking you as to the location?

A. It is on the west side where the three pipes of the Gold Run Mining Company come down the ladder.

Q. Originally you assume that the hill there had a slope. Now was it on the upper side or the lower side?

A. The lower side of what?

Q. Of the hill as it originally was, where you found this cemented gravel

One side, the lower side was towards Canon Creek and the other side towards the summit of the hill.²

A. It was on the upper side, the west side.

Q. How thick was the cemented gravel there?

A. I will have to refer to my notes to answer that. It was quite a large layer. I have a diagram of those banks that I can refer to.

Q. Now you have given the proportion or rather the quantity of material mined and the proportion that has passed below Smartsville and did you in that computation mean to say that there 176 millions was approximately the entire amount of mining upon the Yuba river and its tributaries?

A. It is very clearly stated in that report what it is. I prefer to use the words of the report. On the principal pits and excavations on the water shed of the Yuba river.

There might be some omissions of smaller pits but the principle work upon that water-shed ever since mining

began.

Q Did you examine Hunking Creek below the Tunnel of the North Bloomfield?

A No.

Q Did you examine it above the tunnel of the North Bloomfield?

A Yes, I have seen it. I have observed it.

Q You made no examination below?

A No. Only at the mouth. Near the mouth for perhaps a quarter of a mile up.

Q About a quarter of a mile?

A Yes.

Q Now is it not true that there is a very large amount of material deposited in that creek below the mouth of the tunnel?

A No. I judge that from the fact that the creek has a fall of some 400 or 500 feet to the mile and it is hardly possible that any great amount would lodge in that creek. That is a conclusion however.

Q That is a matter of theory and not from observation?

A It is a conclusion that I arrived at; not from observation but a conclusion

having the fall of the Creek and its length approximately.

Q. Is it not a fact that the deposite there is more than thirty feet deep through out the length of that Canon from the mouth of that tunnel down?

A. I think not. I have seen the Creek above and it has washed out - there has been deposite perhaps 20 or 30 feet deep but they have been washed out.

Q. Was not there that amount of deposite in it when you were there in 1879 and every time you were there?

A. Below the ~~Ch~~ tunnel.

Q. Below the tunnel. Below the mouth of the North Bloomfield Tunnel?

A. I can not speak from observation but I think it would be impossible considering the fall of the Creek.

Q. Is not it true that in that creek and above the mouth of the North Bloomfield

tunnel that there are many millions of cubic yards of deposit that have remained there for many years?

A. Many millions is indefinite. I hardly think so.

Q. I will say ten millions?

A. I think not.

Q. Do you know anything about it?

A. Yes. I do know something about it.

Q. What do you know?

A. I know - I have looked into this matter and have measured and examined those small ravines at times and they do not contain a great deal.

Q. Have you measured this Creek?

A. I have not.

Q. Or made any observation upon it.

A. No, sir. I have only seen it.

Q. Seen it at what points?

A. I cannot designate it now from memory.

Q. Have you ever walked down that creek, or up the creek?

A. Down the tunnel, in going to the —

Q. Inty' from the tunnel up to North Bloomfield?

A. I have walked along the road which I think runs along the creek.

Q. You could see it all the way could you not?

A. Yes, I think so.

Q. Was the creek there 300 or 200 feet in width?

A. No, I think not. It might rarely be — in a few places.

Q. What would you say was its width? A. I do not think it was so wide as that. In a very few places possibly.

Q. What do you say was its width? A. 50 or 60 feet generally; perhaps one hundred.

Q. 50 or 60 feet?

A. Perhaps 100.

Q. How far were you away

from it? A Right along —
Side of it on the road

2. And so to 60 feet you
give as the width?

A I think that without a
very distinct recollection.
I do not want to be positive
on that point

2. And is it not true that
it is filled there to a depth
of 30 to 40 or 50 feet, and
that in places it is as wide
as 500 or 600 feet?

A I should say not; that
is, from recollection of it.
I do not think it fills —

2 [Int.] Do you know
anything about the depth
to which it is filled?

A No, as regards that
particular Creek I do not

2 Do you know Spring Creek?

A No.

2 At Columbia Hill?

A Not by that name. — I do
not know what creek you
refer to.

2 Is there any creek there

Which drains those mounds at Columbia I tell?

A In a southerly direction?

Q In either direction?

A There is a creek that runs in a southerly direction. I have forgotten the name of it.

Q No matter for the name. Call it a creek running in a southerly direction filled with debris?

A A great deal of debris in it.

Q How many miles in length?

A Perhaps a half a mile, perhaps a mile that I saw.

Q Is it not 2 miles?

A I can not say.

Q How wide? A Probably 300 or 400 feet wide, at that one place where the road crosses it I think.

Q Is it not considerably wider than that for an average for its entire length?

A I can not say.

Q Did you make any inquiries

of anybody there, as to the depth of the fill, so that you could determine approximately even as to the amount of material there?

A No. In general I desire to say.

Q Is it not true that in regard to this particular place Spring Creek - there are now more than 10,000,000 cubic yards in that creek below the Columbia Still Mine and between that and its mouth - the mouth of the creek?

A Two miles distant?

Q Yes?

A 10,000,000?

Q Yes; it is considerably more than that?

A Well how long?

Q Three miles? A No. Not at all likely. It is almost impossible.

Q If it were 50 feet deep and half a mile wide or $\frac{1}{4}$ mile wide and 3 miles in length? A You can

assume those widths and the filling there would be 3 or 4 times as much as in the same length of the American River, but I think it entirely improbable that a creek will contain as much debris as the river with a smaller slope. I think these things must be looked at comparatively where no measurement is made. Probably 1,000,000 cubic yards would be an excessive amount for a creek of that length. I have measured in Canon Creek for $1\frac{1}{2}$ miles and only found a million cubic yards in it.

2 Did you look there where the flume was laid and the cut was made through the debris deposit?

A I do not remember. I remember a flume, I think, down at the lower end of it.

2 Was that cut flumed

in deposit that had been made there to a depth of 60 or 70 feet?

A I can not tell you from recollection

Q. Did you go there to determine what amount there was in those canons or Creek, or only what amount had been mined? A At that time I was not on that Creek except for the purpose as ascertaining what had been taken from the ground, excavated. The river survey was to determine how much had been deposited and remained in the river

Q When you were making your estimate of the amount that had been mined, and then of the amount in the river, and then of the amount that had passed below Martsville, did you purposely leave out all that had been deposited and remained in these lateral creeks and canons?

A. I did not regard that as being very material or very important.

Q. Or not being material?

A. Yes. In amount.

Q. Do you know Shady Creek, passing from Columbia Hill to Chimney Hill?

A. No, I do not remember.

Q. Looking at your map there you will see it.

A. [Looking at map] No, I did not examine Shady Creek. I did not go down that creek.

Q. Could you go around and see these claims about Columbia Hill, without seeing that creek, and seeing the immense deposits that there are in it?

A. I could see part of the creek undoubtedly.

Q. Where did you see it?

A. It is not more than half a mile wide and from the best evidence you could get from 60 to 100 feet in depth with tailings or deposit.

A. I can not say

2. Is it not true that there are 7 or 8 miles length of that Creek, that are filled with deposit and that the surface is not $\frac{1}{2}$ to $\frac{3}{4}$ of a mile and sometimes a mile in width?

A I would think that would be very improbable

Q I am asking you about what you know, not what you think would be improbable.

A I know the grade of the Creek or fall of the Creek is nearly 200 feet to the mile and I do not think it possible that much material except in a few places would lodge in it. That is the only thing I know about that Creek

Q Where is the fall of that Creek 200 feet to the mile?

A The average fall

Q It will average that?

A About that

Q Have you been through the length of that Creek?

A I have not. I have been at the mouth and at the head.

Q Do you know whether at the lower end of it it comes down a slope from the top of the mountain which is almost vertical?

A I do not.

Q Do you know whether that is the fact or not?

A I do not.

Q Where you crossed it in the neighborhood of Columbia Hill, was it a comparatively level stream or was it precipitous there in its bed?

A I do remember.

Q You do not remember?

A I do not.

Q And yet you crossed it there from time to time?

A Perhaps once.

Q Only once? A I do not remember crossing that creek only once. I may be mistaken as to the locality 12905 and may have crossed it

Several times. I think there
is no question but what
there was tailings there.

I never not there many mil-
lions of cubic yards, not less
than ten million cubic
yards? A No. I think

that is an exaggeration
I think not?

A I think not.

I say you went Slate
Creek? A Yes.

I And the mine in the
neighborhood of Laporte?

A Yes.

I St Louis and other places
in that neighborhood?

A Yes.

I Did you look at that Creek?

A I did.

I Do you know that that
Creek for 40 miles in length
is now filled with deposits,
they being from 40 to 75
feet in depth and from
100 to 600 feet in width?

A I do not. I think those
dimensions might apply to one

or two localities. I do not think it is at all probable they would apply generally.

Q Where did you go to see L.

A From the head of the Mining Belt at Whiskey Diggins down to Laporte.

Q That point out on the map where you have been there?

A There is Whiskey Diggins and here is Laporte. I know nothing about the creek below Laporte from observation.

Q How long is it from Whiskey Diggins to Laporte, how long is this creek, I mean? What is the distance?

A It is 18 miles probably.

Q Did you follow down the creek there?

A I think I saw it pretty much all the way.

Q At the Crossing of the Road between St Louis and Laporte is it more than 300 feet in width?

12907 A No I think not. I do not

think it is as wide as that.
It seems to me the bridge
is not as long as that.

Q When was you first there
A In 79 in August or Sept-
July or August.

Q When you came down from
Whiskey diggings to Laporte
did you follow the road or
the Creek?

A I followed the road a
part of the way and rode
in the Creek about a mile.

Q About a mile?

A Yes.

Q Where did you follow
the road and where the
Creek?

A I went down in the
Creek near the road that
crossed the Creek, the road
that leads from St Louis to
Laporte.

Q That was a mile at the
lower end?

A Yes, About a mile. You
could see more than that
distance.

Q Now from St Louis to the Road Crossing which runs from Laporte to St Louis is not the average ^{width} depth more than 300 feet?

A No I think not. I should say two hundred would perhaps be nearer right than to my recollection of it.

Q Is it not true that the depth between those two points is more than 60 feet average.
Mr Starr Depth of wharf?
Mr Belcher Depth of the tailings
Witness. No. I think it might be a maximum.

Mr Belcher did you inquire of anybody living there and who had been acquainted with that Creek in the earlier times as to the depth of the filling?

A No I made no inquiries. Not that I remember at present. There was a good deal of conversation about it and I know they spoke of the Creek being very much filled up

— which I saw. There was no doubt a great deal of material in the creek.

Q From whisky diggings down to the point where you strike the creek or just above it could you see the creek at all from the road?

A I think there is a bridge crossing the creek at whisky diggings. That is my recollection.

Q I ask you from that point down?

A I cannot say.

Q Is whisky diggings on the north or south side?

A On the north side.

Q And the road is on the north side also is it not, following down the ridge?

A The road crossing, going in a southeasterly direction to whisky diggings, crossing this creek, I think crosses this creek near its upper end. I crossed that ridge

and saw the character of

that place, I believe it
was Clear there, Clear of
debris there.

Q Below the Crossing of the
Road from St Louis to Laporte
did you follow or see the
Creek at all?

A I saw the Creek at the
Crossing of the Road from
Laporte to Portwine.

Q That is only slightly below
A That I guess is two or
three miles below =

"By Consent of Counsel the
Witness was temporarily with-
drawn from the stand, that
Gen John Bidwell, who
desire to leave for Erie
might be put on the stand =

Testimony
of
John Bidwell
Called for plff in Rebuttal Sworn.

Wst Hart Owen did you come to California?

A In 1841

Q. Have you been residing in California ever since?

A With the exception of temporary absences on business

Q. When did farming become an industry in this State - when was agriculture commenced?

A Modern farming by the Americans was begun. You may say at about the time I came

Q In 1841? A In 1841 Sutter was settled here at this place at that time and had begun farming on a very small scale

Q Had any mining been commenced in this State up to that time?

None to my knowledge
 show extensively or
 how many farms do you
 remember of in the Sacra-
 mento Valley prior to 1850?

a Prior to 1848 when the
 mines were discovered
 Sutter, John Sinclair, Wm.
 Dailer, Theodore Cordova,
 Wm Jordan on Cash Creek,
 Wolfskille on Putah Creek,
 the Vacas at Vacaville - but
 they never farmed much.
 Peter Lassen on Deer Creek,
 Thomas Storms, and Scharf
 and Dye in the upper
 Sacramento. Major Redding
 up at Cottonwood, Samuel Neil
 and David Dutton on Butte
 Creek. On the Farwell grant
 John Potter and Mr. Dickie
 on the opposite side
 but he had not plowed
 any ground. Stuber on the
 Stuncutt Creek. That is
 the line between Yuba and
 Butte Counties I believe
 William Johnson on Bear

Creek. Nicolaus Altgier at Nicolaus, Thomas O. Larkin on the Larkin grant on the west side of the Sacramento River. Princeton is on that grant. There was a settlement also on Stony Creek by a Mr Bryant in 1846. Now those are about all that I remember.

Q Were you farming yourself or engaged in agriculture? A I commenced on a very small scale to cultivate in the Spring of 1848.

Q Before or after the discovery of gold? A Before - just immediately before.

Q By Bear Creek what stream do you mean?

A I mean Bear River that empties into Feather River about 12 or 16 miles this side of Marysville on the East Side.

Q To what extent had stock-raising become an

industry in California before
the discovery of gold — in
the Sacramento Valley?

a That was the principal
industry all the time.
Sutter had about 4000 or
5000 head of cattle. Mr
Cordova above the Yuba
between the forks of the
Yuba and Feather Rivers
I think ^{had} about 1600 or 1800
head and every body who
had settled had bought
cattle. That was the prin-
cipal industry.

Q Do you know anything
about the Furnes's?

a Sinclair represented
Furnes. I said Sinclair,
I meant Furnes and Sinclair
they were owners together

Q You reside at Chico
in Butte County? a I do

Q Do you know anything
about the Cherokee mine?

a I have been there a
good many times

Q How far is that from

your place? A 20 miles
Q In what direction?

A I think it is a little
South of East. It is not due
East but probably to the East
of South.

Q Have you ever seen the
Canal constructed from the
Cherokee mine South?

Mr Belcher I ask what they
propose to prove by this
witness in regard to the
Cherokee mine?

Mr Starr we propose to prove
what we proposed to prove
by Major Biggs in regard
to the Cherokee mines; that
it carries a great amount of
plumgullin, it could
hardly be called liquid-
between liquid and solid
and carries it down to Butte
Creek and covers lands
with debris, that never had
been covered with debris
at all to the extent of a
quarter of an inch since
the organization of the State.

up to the time they turned
this mining stream into
it.

Mr Belcher Is that we
shall object that it is
not in rebuttal

The Court The same ruling
as before. Note an ex-

ex ception by defendants.

Mr Start Does that canal
run through your ranch
or near it? A No sir

Q Have you ever seen it
carrying the material
from the mine - the canal?

A At the crossing of the
public roads only, the
road that runs from
Chico to Groville, and
where the railroad crosses
it from Chico to Biggs Station
I have only seen it from
those points and where
the road crosses it
in going from Chico to
the Chewkee mine. I
have only seen it where
the road crosses

What kind of material does it carry? A It seems to be a kind of material that colors the water yellow and when it dries and the wind blows upon it it shows considerable white sand

Q How thick is that material carried in the water? A Well it seems to be very thick that is all I can say. It looks as thick as thin cream. I do not think that is a very definite way to answer but I should say there was a great deal in suspension it is very thick the water is.

2- I suppose know where that Canal empties?

A- No Sir I have never been to the mouth of it looking at the direction where the Railroad crosses it it seems to be very straight; It points low

down in Butte Creek.

Q- Were you acquainted with that Butte Creek country prior to the time that this canal was carried in there?

A- Yes sir.

Q- How extensive had been the occupation of farming for a considerable number of years along the banks of Butte Creek and its tributaries?

Mr. Belcher I object to that as not in rebuttal The Court I do not see the materiality.

Mr. Hart My object is to show that there was more farming and stock raising on the bench of Butte Creek than there is on the entire basin of the American River and that for 20 years during which this occupation was carried on there, there was not

enough natural wash as the result of this farming and stock raising to make it a quarter of an inch fall in the Country through which it runs and that but a few years ago they run that Canal through there and that it has now filled the country up with the same kind of stuff that we find here in Sacramento, as tending to contradict their theory in relation to the natural wash of streams upon which agriculture and stock raising is pursued. It is one of the Creeks that empty into the Sacramento River from which they claim the natural wash is filling the River and runs from the mountains.

The Witness Doug Creek is the Creek that is drained from the Cherokee Mine not Battle Creek - it strikes

it low down.

Mr. Hart I was just speaking of the Butte Creek country. I ask you if you knew.

The Court I will hear the testimony.

Mr. Belcher Note an exception.

ex

The Witness I wish to say that I do not wish to be understood as saying that Dry Creek empties into Butte Creek but it spreads and gives out before it reaches Butte Creek. It did it reach it before there were any mines. There was no direct channel in Butte Creek, it simply branched and spread on the plains.

Mr. Hart How long have you been acquainted with the Butte Creek?

A since the early Spring of 1843.

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2- What has been the

extent of mining and farming along the banks of Butte Creek?

A. Of farming and stock-raising.

Mr. Belcher - The Court allows him to go into this examination subject to our exception. We have offered no testimony in regard to Butte Creek.

Mr. Hart This is in relation to the natural wash

A. The extent of farming and stock raising has been considerable. The Neil Grant was on the east or south east side of Butte Creek. It was a grant of 5 leagues and it had all the cattle it could sustain and a great deal more for they overflowed onto the contiguous, government land and other grants.

On the other side was the Heesley Grant, that

was occupied also quite extensively, and the Osio Grant annexed now by Judge Pratt on the west side. It belonged to Antonio Osio. It was called the Aguasfrias - that is the Osio Island that is one of the most extensive cultivated tracts of country in the Valley.

Q- Where does Butte Creek have its rise?

A- In the Sierra Nevada Mountains near Deer Creek.

Q- Now pursuing the Creek along up in the mountains state the amount of stock raising and agriculture as you go along - state it generally without very much particularity.

A- There is very little cultivation on Butte Creek except in the canons where the mines are

Q- How is that?

A- Very little cultivation in the mountains on Butte Creek.

Q- Except in the canons where the mines are?

A- In the canons there are a few orchards and vineyards.

McLeart You are speaking of early days?

A- No Sir I am speaking of now since the mining commenced. There was no settlement in the mountains on Butte Creek before mining at all.

Mr. Hart Now about stock raising in these mountains?

A- Since the Mines were discovered people have pastured the mountains to the extent that they yield food, but that is very sparse.

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Q- Has it been used done

every year - annually?

A - I think that cattle and sheep have grazed on the mountains contiguous to Butte Creek continuously for many years past.

Q - How many years would you say?

A - Will the pasturing of stock there commenced with the mining?

Q - How long ago was that?

A - Mining commenced in 1850.

Q - Was extensive mining there?

A - Well tolerable extensive even in 1850 and '51 by the rocker and pan.

Q - How far was the extent to which agriculture has been pursued since an early day where it has been largely pursued, that is the actual cultivation and plowing up of the soil?

Q- There was very little cultivation before mining up there it was principally stock raising, hardly any cultivation before the mines.

Q- Well along the banks of Butte Creek?

A- Well enough to support the inhabitants and nothing more, there was no sale for agricultural products.

Q- How long has that entire country been subjected to cultivation?

A- Since 1844.

Q- Since 1844 - not all of it?

A- It has been subjected to pasture, and the cultivation at the Niel Grant which was the first on Butte Creek consisted perhaps of just a few acres of corn and mellons, four or five acres of wheat perhaps - I think there was no wheat sown on the Niel Grant until 1845. The settlement was begun in the fall of 1844.

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Q- How extensive was the cultivation

on that creek say as early as 1860?

A. Oh, very large, quite large. The land is fertile on both sides of the mountains and except where it grew a little too wet to cultivate it has been cultivated.

Q. Is it true that during each high water season any considerable proportion of the cultivated land is covered with water along that creek?

A. Yes.

Q. How much?

A. I can not answer that in that way, for I do not know it in acres. The Channel of Butte Creek has been filling ever since the mining began and it has gradually increased filling it up more and more until now the levees where the Public road crosses; that is the only place that I have examined lately - the levees are such that I think nearly all the water now runs about what was originally the top of the banks.

2 How extensive was stock raising in the valley along that stream before the commencement of mining?

A. Well I answered that: that on the Mill Grant there were a great many cattle; as many as it could support.

The Court - He told you the number in the valley and said that on the hills there were as many as it could support.

A. The hills yield very little grass, very little pasturage.

Mr. Hart. Before mining commenced, what was the character of the stream?

A. Pure and clear as all the streams were in California except the Sacramento River. That we always regarded as a kind of murky stream just as you see it now above the mouth of Feather river. But all the others were clear just as you will see the clearest streams where there is no mining now.

2 What was the difference at that time in the soil or what

was the condition of the soil in this valley and the mountains that you were acquainted with as compared with its present condition as to compactness in 1850 and from that time on up or from the time you knew it in 1841?

A- When I first came into the valley in 1841 it was a very wet time and in traveling we had to follow paths - generally would follow Indian paths and whenever we got out of them it was soft and miry but the rule was that we had to follow some kind of path always.

Q- What was the reason of that you say?

A- Because the soil was soft.

Q- Was that true in the mountains along Butte Creek and the other creeks as well as in the valley?

A- I did not travel in the mountains in those early times, but I have noticed this: that since stock got to running over the valley and the mountains that the soil

has become considerably compact. It is harder both in the valley and in the mountains.

Q What effect does that have upon the natural wash or erosion of the soil?

Mr. Belcher. I object to that. He is not an expert.

The Court - I suppose he is sufficiently an expert to testify.

Mr. Hart - Have you noticed whether or not, in fact, not as a matter of opinion, that has had any effect upon the natural wash of the soil?

A - I could speak knowingly in regard to the section immediately where I live, for instance Chico Creek and the branches of Chico Creek from it I can speak more particularly about them - places that were once very mucky in the winter in high water are now, since being pastured a good deal quite passable in comparison to the banks of the streams where they go down to water are in many places just as graded to get compact graded so hard as to resist floods when the floods sweep down. We crossed in those places very frequently.

Q. Have you observed what effect the stamping of stock upon land has, upon the natural wash of the soil in that country?

A. That country is very level in the country where I live, the wash from the soil comes hardly be perceivable. I think the effect of travelling upon the level valley there, as well as upon the slopes has a tendency to make it more compact and render it less liable to wash. That is my judgment.

Q. Do that the result of any particular observation upon that subject - have you noticed with reference to that during your residence in the State?

A. Well now, I can speak generally that our streams there are less liable to overflow now than formerly, from the fact that we cut out the drifts from them. Nearly all our

Streams are bordered by timber, sometimes by very large timber and sometimes oaks and other large trees will fall into the streams, and now the farmers everywhere up in the valley have cut away those drifts, as they have for navigation purposes been removed to a very large extent in the Sacramento River.

Q. Now state what the effect of mining has been upon Butte Creek? A. To fill up the channel.

Q How deep has it filled the channel? A. I cannot say.

Mr Belcher. I object to that as not in rebuttal.

Mr Hart. I am going to compare that creek with another creek near by so as to show that it is not the natural wash that has filled it up.

Mr Belcher. We move that the testimony as to the filling up of the channel be stricken

out.

The Court. I thought it was understood we were not going in to any mining.

Mr Hart. I am not, only so far as Comharson is necessary. Mr Belcher. I do not think that you may even for comparison - The answer that was given will be stricken out. Mr Hart. Let it be stricken out. Where is Chico Creek situated?

A It is on the East side of the Sacramento River right at the town of Chico, or Chico is right on the creek.

Q Is there any mining on that Creek? A No sir.

Q Has there ever been any?

A There has been a little prospecting on it, but nothing considerable found upon it. No mining has even been carried on.

Q What is the character of the country from which Chico Creek comes, as compared

with the Country from which Butte Creek comes.

A. Their head is similar because they head close together, but it is rather volcanic in its character.

2. Where do they head?

A. They head in that high range of mountains, which separates the waters that flow eastward into Feather River from those that flow westerly into the Sacramento River, notably Deer Creek, Chico Creek, and Butte Creek.

2. What is the character of the mountains through which they run, precipitous or gradual in slopes?

A. Precipitous, they run through Canons both creeks.

2. Can you estimate the number of miles of area, or the number of miles of country that Chico Creek drains through the mountains?

A. I can not, but it is much less than Butte Creek.

Q What has been the effect of the natural wash into Chico Creek, and the country through which it runs?

A There has been no injurious effect

Q Has the stream filled in?

A Not that I perceive

Q What is the kind of water that comes through it?

A Clear, very clear. The only thing that has damaged it there is saw-dust from the mills, that fill it, but it generally washes it out in the winter

Q Where does Chico Creek run with reference to your land?

A It bounds it on the South - It forms my Southern boundary

Q Along the banks of Chico Creek has there been any debris deposited upon the land?

A No sir.

Q None at all?

A None

Q Within how many years can you say that there has

Not been any deposits in Chico Creek? A well, if I understand by debris that it is the character of sediment from the mines, there is none. We have a channel which high water leaves the channel of the creek and also runs in it again and we call it Sandy Gulch because there is considerable sand that fills when there is high water, that will leave a little sand just at the very mouth where it reenters Chico Creek again. I have noticed it

How deep?

A I never measured the depth of it

2. You mean in the channel of the creek that runs back in? a. I notice both in Sandy Gulch and I think all the streams that the drift has been removed from, I noticed that they deepen a little — at least that is my judgement

they are a little deeper than formerly.

Q How about Deer Creek?
Mr Belcher I will make the objection here once more, they are going outside of any examination that we have made. It is not rebuttal.
The Court I understand that it is so on.

Mr. Harr How about Deer Creek?

A The water is clear in Deer Creek.

Q Where does it find its rise?

A It finds its rise in the same Chain of Mountains that Butte and Chico Creeks rise in. It is the ridge that separates the waters flowing west into the Sacramento from those flowing eastwardly into Feather River.

Q What kind of a Creek is it clear?

12937 A The water is clear it

was the last time I saw it
 Q Does it carry any considerable amount of sediment?

A No I think not I do not think it carries more than more than Chico in proportion to the volume of water.

Q Can you notice any perceptible difference in that Creek and the land through which it runs since you have known it.

Mr Belcher I object to that as entirely leading

The Court It is suggestive
 Mr Hart If so what difference
 A Am I to answer the question.

Mr Hart So you remember if any difference has been made in that Creek or in the valley lands through it runs in the last 20 years State what that difference is

A The only point on the Creek that I have made any observation and that is where the Rail Road crosses

it - it seems to me that Deer Creek looks deeper where the wagon Road crosses it than it used to be in former times.

Q Is the Creek as Clear or less or more Muddy than it was?

A It is just as Clear.

Q Did you ever notice it in high water times?

A Yes sir.

Q What Kind of sediment does it Carry then if any?

A Well I suppose it to be the same sediment that has made the valley here - it is not a sediment that makes it yellow, it Colors it a little, not to make it Muddy.

Q Enough to make it Muddy?

A Not enough to make it Muddy.

Q Simply Colors it?

A As all the Streams used to be before the mining in high water, they were not exactly Clear.

Q How does it Compare with

Butte Creek?

A Oh Butte Creek is muddy now since mining began on it.

Q Do you know whether or not cattle and sheep has been accustomed to be pastured upon Chico Creek ~~See~~ Creek since 1849?

A Well I know people drive there stock in the mountain every year and they posture even the shrubbery all the way up to the ^{very} Summit. That is all that I can say.

There are not ranches or farms located in the mountains as I know of for the purposes of pasturage only.

Q Do you know where those creeks empty?

A Yes sir.

Q Where?

A Chico Creek empties into the Sacramento River about five miles in a direct line south westerly from the town of Chico and Butte Creek empties

into the Sacramento River
below the town of Colusa and
would say just about west
of the Butte Mountains.

Q And Deer Creek?

A Deer Creek emptied into
the Sacramento River I would
say about three miles from
Vina the Railway Station at
Grikeys Ranch.

Q Do you know whether or
not there has been any con-
siderable amount of timber
cutting along those creeks?
A There has been of late years
but I know more particularly
about Chico.

Q How about that?

A There is a good deal cut
on that.

Q How long have they been
cutting the timber off there?

A Since 1876 very rapidly.
There was some cut off before
but not to so great an
extent.

Q What kind of Cattle, what
kind of Stock are driven into

those mountains there for
the purpose of pasturage?
A Sheep principally.

Q What was the difference in
1842 when you first came
here between the Feather River
and the Sacramento as to
clearness of the water?

A I did not see Feather River
until 1843.

Mr Belcher I object to that as
not rebuttal.

Mr Hart I want to show
what the difference was between
those two streams then
in 1843 as demonstrating the
natural wash proposition?

A Am I permitted to answer
The Court Yes more an
exception.

&

A Feather River was the
clearest stream it was
perfectly clear, the Feather River
Q When did it first com-
mence to get muddy if you
remember more so than the
Sacramento?

12942 A When mining made it so

Q. How did the Sacramento compare with the American Yuba and the Bear?

A. Those streams were perfectly clear as clear as crystal before mining made them muddy.

Q. Did you ever hear anything about a flood in 1830 in this Country?

A. Well there was an old Frenchman by the name of Amertine that was given to telling very extravagant stories and from him the report came that he went down to the mouth of the Sacramento River from here and only saw the tops of the trees out of the water but no one ever believed it.

Q. Was there any general rumor of that kind in this State?

A. No sir.

Q. When you came here State whether or not this valley generally was susceptible of cultivation without leaving the river?

Mr. Belcher - I object to that as not relevant.

Mr. Hart. From the time that you came here up until the time that mining commenced?

<The Court sustained the objection>

—————

<Here the Court took a recess until two o'clock>

In the Superior Court
of the State of California
in and for the County of
Sacramento.

The People of the State of California vs.	} Afternoon Session Saturday Aug. 21 st 1882
The Gold Run Ditch and Mining Company	

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Winfield J. Davis
Official Reporter

In the Superior Court
of the State of California
in and for the County of
Sacramento

The People of the State
of California
v.s.

The Gold Run Ditch
and Mining Company

Afternoon Session
Saturday

January 21/82

Testimony

of

John Bidwell

Cross Examination Resumed

Mr Belcher - General in 1841
when you came here what
according to your best
information was the white
population of California?
A I think not to exceed one
hundred.

Q. And the industry at that
time and from that time
on to 48 was Cattle raising

was it not?

A It was.

Q And that for their hides and tallow principally?

A Yes.

Q And the farmers that you have named in the Sacramento Valley Cultivated only enough to raise a little grain and a few vegetables for their own eating?

A With the exception of Capt. Sutter, who was endeavoring to raise wheat on a large scale.

Q How many acres did Capt Sutter purchase at any time prior to 48?

A I think in 1844 - I mean in the fall of 43 or the beginning of 1844 he must have had not less than from 1500 to 1800 acres.

Q Did he pursue it after that?

A He did.

Q To the same extent?

A Well I think fully to the same extent.

12945

Q Where did he have it?

A He had it on a tract of land running between where the old Fort was and immediately south, some of it this side, in this direction and some of it up in the American River towards where Brighton is ?

Q Somewhere between 1500 and 1800 acres ?

A That is my impression.

Q And that was about all the Cultivation with the exception of the little Cultivated by Sam Keal and others ?

A Yes.

Q And above Keals place was there any Cultivation to amount to anything until prior to 1848 ?

A Peter Lassen raised some grain.

Q How much ?

A Enough to supply himself in bread and something more.

Q How much would that be

12946 A I suppose he had perhaps

ten acres of wheat. And Mr Potter who settled on the Farwell grant - he went there in 1845, Mr Potter did and he Cultivated land there.

Q He Cultivated less than that?
A He had a field, I should think he had ten or fifteen acres there as nearly as I can tell.

Q And Cordua?
A I think he had perhaps the same.

Q You think he had as much as that?

A I think he had.

Q Was it not all on that little flat between Marysville and the Feather?

A Yes.

Q Could there have been more than five or six acres there on the outside?

A Yes.

Q That which was surrounded by the plow mark. There was not any fence there, There

was no fence around what he had in Cultivation - what Cordua had?

A Yes but in those days they used to make fences of brush.

They were not very permanent.

Q You think he might have had 8 or 10 acres?

A Yes.

Q And that was about the extent of the Cultivation.

A With the exception of Sutters Cultivation. No one pretended to Cultivate for export except Sutter.

Q Now you have spoken of Butte Creek?

A Yes.

Q Did I understand you correctly that that Creek empties into the Sacramento River at a point about five or six miles below Colusa.

A That is what I mean but I mean when the water was high, because when there is no water there is no channel.

12948 There is very low tide - very

low tule.

Q This in early days used to be called the sink of Butte Creek?

A It was called the sink of Butte Creek and speaking generally we said it emptied into the Sacramento River because when the stream was flush the water went in there.

Q Let me ask you if you have been there recently and let me ask you if it is now true that Butte Creek never did empty into the Sacramento River but passed into tule below. Is it now true that Butte Slough comes out from the River at the point you have named taking the River waters out into the tule.

A Well sir in high water a part of Butte Creek swollen by the overflow of the Sacramento River and other streams above passes into

the Sacramento River and a part of it passes between Butte Mountains and the Sacramento River and it does not reach the Sacramento River again until it has crossed the Feather River and in early times it struck the American River before it struck the Sacramento River.

Q Flowing along the foot of the foot hills before reaching the Sacramento ?

A Yes.

Q I will ask you if in times of flood you were ever on the bank of the Sacramento when you saw the water from Butte Creek or from the trough there passing into the Sacramento River — in the time of flood ?

A I would not like to say that I did but I will tell you what I did see. I started from Sutters Ferry

in february 1846 and I
 Crossed into the plains just
 above the mouth of the Amer-
 ican River which was a
 Lake of water and I kept all
 the way on what is the low
 land between the margin of the
 River which is higher than it
 is back and I crossed the
 Feather River and went the
 whole length of what is now
 Sutter County and I did not
 go into the Sacramento River
 at all. I passed between
 Butte Mountains and the
 Sacramento River and I
 went possibly to where the
 town of Colusa now is.

Q And it was all a Lake
 of water?

A Well the margins of the
 Sacramento River were out,
 were above the water in a
 great many places but it
 was a lake between the margin
 and the higher land back.

Q At that time was the water
 passing from this basin

Where you were into the River
or from the River into the
basin all along?

A I do not understand the
question.

Q I will ask you if the
water was passing from this
basin in which you were, mo-
ving into the River or from
the River into the basin?

A He saw in several instances
where the water was running
from the Sacramento River
back towards eastward, He
saw that this side of the
Feather River.

Q Above the Feather River?

A Above Feather River did you
find in ^{any} place where the water
was passing from the eastern
basin into the River or was
it always passing from the
River into the basin eastward?

A It was always passing into
the basin so far as I observed
on that trip. He did not
approach so near to the bank
of the Sacramento River after

we had crossed the Feather River
as to see the water but my
Knowledge of that Country along
there is that the immediate
Margin of the River is a little
higher than it is back and
when the River is high it flows
back generally through depressions
and a current is made. But
I had not answered all of that
other question. You asked me
if I had seen the water running
from Butte Creek into the Sac-
ramento River. The banks being
all under water I think some
of the water did go from Butte
Creek into the Sacramento River.
I can state further that I
passed once from where the
town of Colusa now is, where
the Old Colusa Rancheria used
to be - I crossed the River
there and went to the Butte
Mountains without ever striking
any distinct Channel of the
Creek but the tide was very
low and it was a very dry
season, 1844

Q And you perhaps have been across when the water was high enough so that you could get into a boat at Colusa and go to the Butte Mountains?

A I did not travel during high water much in those days. I happened up at that one time in February 1846 — I happened up there at that time.

Q When you went up there that time it was high enough so that along there the banks were entirely covered?

A Where were they entirely covered?

Q Along up from say Butte Slough up to the town of Colusa on the east bank?

A No. I did not say they were entirely covered.

Q Were they or not?

A They were not entirely covered all the way.

Q Were they for the most part?

A I think they were between Butte Mountains and the point where I went.

Q That was opposite Colusa?
A I think they were for the most part.

Q That is the very part I am now inquiring about. Was not the current of the water from the River out into the tule basin there all the way?
A I did not observe it there. I did not observe it running out there but I did observe a very distinct current, a very swift current that we had to paddle against between the Butte mountains and where the River was.

Q Did ever you follow Butte Slough at all?

A No sir.

Q You have spoken of the mountains in the higher country in the neighborhood of Chico and back from there and above? A Yes

Q And have spoken of its being Volcanic. Is that a light soft volcanic rock or is it basaltic? A It is light in comparison with what I understand to be basalt.

2- I will ask you if those table lands there, say the table lands above Cherokee and the table lands this side of Cherokee on the plains are not basaltic and strictly so?

A- I call the rock lying above the flat rock that caps the table mountain - I call that in part soft and in part otherwise. The hard rock I understood to be volcanic basaltic rock. What we call basalt is that which is very hard and when it becomes polished by the water it looks somewhat vitrified, somewhat like glass, but it was not all of that nature.

2- Is it not true that along the headwaters of Butte Creek and the head waters of Chico Creek and so far as any of that rock of that character is observable along the head waters of any of those Creeks that you have named that it is basaltic in

character?

A- But not hard, it is volcanic.

Q- Is it basaltic?

A- If you will tell me what basaltic means I will tell you.

Q- You have spoken of basaltic what do you mean by it?

A- I understood it to be a very hard volcanic rock.

Q- Is there any other rock at the headwaters of these streams than this class of rock?

A- It is all volcanic up there but it is not all hard rock as I have good reason to know for I removed about one hundred yards of it - I blasted it and etc and has something to do with it.

Q- It is all rock of that character?

A- Yes All that I have observed.

12957 I would not say but what

there are some rocks and boulders different in hardness I think very likely there are some hard rocks.

Q- There is no granite there?

A- No Sir It is not a granite region.

Q- It is not a granite region but is volcanic?

A- That is what I understood it to be.

Q- And strictly so? A- Yes

Q- You have spoken of the rivers. You said that the Sacramento was never a clear stream. In comparison with the Yuba and the American and the streams on this side, it did not vary formerly much from what it is now up at Colusa and above, not very much. I think

perhaps now it is a little more murky but it did not vary materially.

Q In flood was it not always a turbid muddied

stream?

A- No Sir. In comparison to what I call a muddy stream from the mines - not at all.

I- Compare it with nothing but ~~compare~~^{specify} it by itself was it a muddy stream?

A- It was not, but I will say this; if there is any difference in it it is a little more in that direction now than it was. I am speaking of it now above where these muddy streams comes in.

I- Are you speaking of it now with reference to low water or high water?

A- I am speaking generally but I will say this; in times of flood it will become a little more frothy but very soon as the stream would fall it would again become clear.

12959 I- Do you know that the drainage area from the

Sutras commencing on Butte Creek and thence along down between that and the Feather comes into the Sutter basin and that on the other side from Stony Creek down to Knights Landing it all comes into the basin lying to the west of the Sacramento River?

A. That is a very broad question. What do you call the Sutter basin?

Q- I mean the tule basin commencing at Knights Landing in Sutter County and extending thence up into Butte County almost to Chico Creek?

A. And then do you mean to ask me if Stony Creek empties into that?

Q- No Sir. I mean now if Dry Creek and Deer Creek - not Deer Creek - but Dry Creek and Butte Creek and all the intervening minor

streams come into that basin.
Not into the River but into
that basin?

A- Butte Creek is the only
stream that enters into the
Sacramento River there
and that only comes in, in
high water. All the others
drain if the drain anywhere
out on the plains but if
they drain anywhere it ~~is~~^{is}
in high water and they
come of course in that
direction and mingled their
waters with the overflow
waters of the Sacramento
River and go down parallel
with the river across the
plains in Sutter County.

2- Along the other side
of the River from Stony
Creek down to Dwight's
Landing is a distance of
some 60 or 70 miles
is it not?

A- It is about 50 or 60
miles I should say.

I- Well call it 50 or 60

mills. Is there a single stream from the mountains there, from the Coast Range that comes into the Saccamento River?

A Not one until you get to Cache Creek

2. Now are there not a great many mountain streams that come in there?

A There is not a running stream that comes in between Stony Creek, and Cache Creek in the summer time. Stony Creek is a dry creek in the summer time, but in the winter time times of flood these streams are sometimes greatly swollen, and do spread when they strike the tule or the low land

2. In these early times that you speak of in 1843 and from thence up to 1848 were those clear streams?

A Whenever they had water so far as I know they were clear streams but to tell you the

truth I could speak only of
Cache Creek, I never went much
further north in those early days.
Q In those early times had
Cache Creek any delta at all
extending into the tule?

A In those early times Cache
Creek emptied right into the
tule and I am not aware
that it had more than one
channel. I do not know as
it reached the Sacramento River.
Q Right at the border of the tule
how was its bed as far as you
could see?

A It went right into the tule
and the tule commenced some
time before the channel gave
out.

Q I mean now about the delta,
the building up of land out
into the tule so that the stream
instead of stopping at the
border of the tule passed
out into it building out land?

A In those times there was no
delta there that I can remember

Q You have not seen it for years?

A No sir I have not. I passed there once and I have not passed there since. I have not felt a desire to go there. There were a great many signs of grizzly bear when I passed there?

Q And you had not lost any of them?

A No sir.

Q You have spoken of some Creek Mud Creek above you, that is bringing down a very considerable amount of sediment?

A No sir.

Q Just above Chico?

A No sir.

Q Has that not filled up the Lagoon into which it empties Or where it comes into the head of the Lagoon has it not carried in a very large amount of sediment there?

A You are thinking about Pine Creek and Rock Creek. You said Mud Creek.

Q Pine Creek and Rock Creek?

A Well sir that Lagoon seems to be changing like some others

I think very likely the Lagoon is somewhat filled up. It did not look to me quite as far across as it did in former times but I will not be positive about it.

Q Is it not shallower?

A It looks to me to be somewhat narrower and it looks to me filled up at the bottom with the settlements of the creeks.

Q Is it not true that along its head and along its course it has filled up largely?

A I have not been up to see.

Q How long since you have been there?

A I have not been there for 3 or 4 or 5 years.

Q Is it not true that more than five years ago these creeks along there came down burdened with sediment in the winter time - Rock Creek and Pine Creek?

A I never saw any sediment spread out on any land there after a flood.

12965 - Q I do not ask you about the land

But I ask you if the streams do not come down in the winter time loaded with sediment? A I have seen those streams when they were swollen many a time and always during those floods they were really but they only remained so a short time — but a few days.

Testimony

B. D. Gray

Called for Plaintiff

Sworn

Mr Hart — Mr Gray where do you reside?

A In Butte County

Q Where with reference to the Canal of the Cherokee Mine?

A Well I live at present some six or eight miles from the Canal. I have lived right along on the line of the Canal formerly until within about four years.

Q Did you read any part of the testimony of a Mr Posey

from Butte County?

A I did.

Q When was it if ever that you farmed along the line of that Canal
A I farmed along the line of that Canal from 1873 from the time the Canal was built until 1878. I farmed there before the Canal was built.

Q How far from the Cherokee Mine?

A Sixteen or 18 miles I should judge I could not tell exactly.

Q What kind of material does that Canal carry or did it carry when you were farming there.

Mr Belcher I object to that question it is not in rebuttal.

& The Court overruled the objection for defendants excepted.

A Well it was a material of a pipe Clay character a sort of lightish slickens as we called it

Q How far from the Canal was your farm located?

A The Canal run through my place

Q How far from your farm was the Canal located? A It ran through my place.

Q. About what proportion of water and what proportion of sediment was carried through your place? Describe it as nearly as you can to the Court. I mean sediment of all kinds? A Well I could not say the water was very thick.

Q Could you give us anything that would illustrate how thick it was?

A I should think that a bucket of water would settle perhaps $\frac{3}{4}$ of an inch of sediment at the bottom perhaps more.

Q How far was your farm located from the land farmed by Posey in 1876 I think it was?

A It was a few miles above him — 2 or 3 miles

Q On land belonging to the Cherokee Company I believe?
A Yes.

Q Do you remember when it was that Posey farmed there? A Yes It was in 1876 I think he harvested a crop in 1876 or 1877

Q At that time were you farming do you say $\frac{3}{4}$ of a mile from him?

A No. About two miles. I say about 2 or $2\frac{1}{2}$ miles above him.

Q State whether or not any of the slickens from that canal got on your land? A A good deal of it

Q How deep did it get on your land from it?

A I have slickens on my land 2 feet and $2\frac{1}{2}$ in places, and from that down to an inch

Q How long did it take the canal to cover your land to extent of $2\frac{1}{2}$ feet?

A This slickens was run on

after the canal was built
from the breaks that came
out

Q Run on from breaks.

A Down breaks out of the
Canal

Q How long was the slickens
in accumulating there?

A I only farmed it three
years. I sold it to the
Spring Valley Water Company
three years after, I think

Q Sold out to the mining
Company that was running
the Canal? A Yes. I had
considerable slickens run
on my land before the
canal was built

Q What effect did this
slickens have on your
land? A How did it affect
the grain?

A Whenever it struck a
grain crop it was ruinous
to it and I never could
produce a crop on fresh
slickens, or anything new,
for the first two years

Q Do you know anything about Posey's farming up there on the lands of the Cherokee Company?

A No I would not state exactly in regard to his farming. I know of his farming.

Q How far from the mine, the Cherokee mine did this canal carry the sediment?

Mr Belcher She has already stated

Mr Hart She said between 18 miles on it but I want to know how far it carried it.

Mr Belcher Objection that it is not in rebuttal and is immaterial

Mr Hart It is rebuttal of the testimony of Robinson who traced that water clear down to the place where it was clear

The Court So on

Mr Belcher, be except

A. I have noticed that water about 3 or 4 miles from the mouth of that Canal. That would be about 30 miles.

Q How was the water at that point? A Very muddy, running a good deal of silt over the ground.

Q How long have you known the Country where the water from that Canal comes out, where it spreads? A Since 1870.

Q What was the condition of the land there at the time you knew it?

A Mr Belcher. Objection that it is immaterial and not in rebuttal.

< Objection overruled; defend ant excepts >

A It was all adobe soil where I lived.

Q It was adobe soil?

A Adobe soil, black adobe soil.

Q You first knew it

when? A. 1870.

Q Could you tell whether it was the natural surface soil? A It was the

natural surface

Q How deep is that covered with sediment now? where the effects of this canal are known

A I have not been on it for 2 years or nearly 2 years

Q How was it before that?

A It was all the way from 2, 3, 4 and 5 to 15 and 18 inches and 2 feet.

Q How large a scope of Country has it covered?

Mr Belcher. Does the Court allow this to go in as to the extent of Country there?

Mr Stant I want to show the amount of siltens that is carried by a single mine there

A The siltens has been confined near the canal ever since the canal

was built. That is the canal has broken and it would settle within half a mile or so on each side of the canal.

Mr. Sturt I mean after it had emptied itself.

A After it had emptied itself there is a wide scope of country there covered with slickens. I do not know as I could estimate it.

Q How far through the canal and the basin into which it runs have you pursued this water coming from the Cherokee mine?

A For 30 miles.

Q No further than that?

A I do not know as I have.

Q Do you know what effect this Cherokee mine has had on Butte Creek?

A No. I do not.

Q You said a moment ago that your land after

it was covered by this slickens
could not be cultivated
for a number of years.
How many years did
you try to cultivate it?

A I farmed slickens land,
sediment land from 1872
to 1878.

The Court where?

A In the vicinity of this
Canal; before the canal
was built and afterwards.

Q That is not the question.

A I do not know as I
understand the question
then.

Q The only question was
as to the slickens from
the canal?

Mr. Hart I own the canal;
slickens from the canal?

A I farmed that land
or tried to for four years
after the slickens got
pretty deep on it.

Q Did you ever succeed
in raising any crops on it?

A No on slickens land

Inever succeeded in sediment
land in raising anything.

Q State what has been
the effect of this silt
coming from Columbia River
upon the lands along it
generally from its source
down to its mouth?

Mr Belcher If he knows.

Mr Hart If you know. Of
course I would not ask
him to state if he did
not know.

A It has had the effect
to depreciate the value
very much.

Q The value of what?

A The value of the land.

Q What effect has it had
upon its productive qualities?

A Well it has produced
scarcely anything.

Q Since when? A Since
the canal was built.

Q State whether or not
there is any person along
the line of that canal
since its construction

who has successfully
farmed any of the slickens
land? A I do not know
of any

What has been the suc-
cess of the farmers there
generally? A It has
been a failure. That is
of those who have tried
to farm slickens land,
that is most of them are
all broken up in their
business

The Court From this canal.
You speak of nothing else?
Ore.

Mustard State whether
or not at the time of the
construction of this canal
there was any arrangement
made between the owners
of the mine and the owners
of this land thro' which it
runs in relation to the tail-
ings and what should
become of the tailings from
the mine?

Mr Belcher Objection as not

in rebuttal and immaterial.
onstart It is in relation
 to this universal custom.
 They agreed to take care
 of their buildings and not to
 let them run on these farmers
 lands

< Question withdrawn after
 discussion >

Cross Examination of B. D. Gray

By Mr Belcher. When you say
 the water in this canal
 was not what you would
 call thick, muddy - roily
 well I would call it
 very thick

Q. Now as to the cultivation
 of that land Posey cultivated
 you say you do not know
 the crop he raised?

A I would not testify to
 that, as to his crop

Q Now is it not true that
 you raised crops on land

that had been covered
with sediment?

A But very little

Q Did you not raise good
crops? A No.

Q You say the land has
been depreciated in value?

A Yes.

Q Is not that land worth
as much to day as it ever
was? A No

Q Are they not selling
it for more now than it
ever was sold for before?

A No

Q You state that of
your own knowledge?

A Yes

Q Where are you living now?
A Near Fiddleys Station

Q How long are you living
there? A Four years

Q What is your business?

A Farming

Q Where? A Within half
a mile of the station

Q Has that been your
business since you left

the other farm solely?

Ayes.

Q Did you mean that the land below or from below the lower end of the canal, all of that basin there, was covered from 2 inches to 2 feet in depth with sediment?

A No. I guess I did not say "all of the basin" I said there was a good deal of the land; I could not tell exactly how much. There is a good deal of land below the mouth of that canal that is covered a great deal more than 2 feet. I have got into stickens there myself once when I was out goose hunting and I thought I would never get out. I went in I guess a good 3 feet

Q That was in a little creek or slough hole was it not?

A Well it had been, but

all filled up. It was pretty near level then

Q It was what had been a slough and filled up? A I expect it had. But it was several rods across it

Q That was down below the lower end of the Canal. How near was that to Butte Creek? A Well probably it was $1\frac{1}{2}$ miles

Q Was it not right down there in the sink, the common sink of Butte and Dry Creeks?

A No. It was above the sink; I think it was above the sink. I do not know as I know exactly where the sink is

Q How far below the end of the canal was it?

A It was some 4 or 5 miles. It was tailings from the canal all the way down.

Q Just a little line of them? A Well a pretty

wide line

When was it?

At that I was there.

Oyes At this present
full passed. I was there
the last time

Q Do you not know there
is very little of the
land there that is covered
with the exception perhaps
of a few sloughs that were
filled in the way you
speak of? A No. I

do not know it. I know
that there is a good
deal covered

Q Do you know how much
sediment is brought down
by Butte Creek there?

A And put into that ground.

Oyes. And any I
should judge

Q I ask you if you know
anything about it yourself?

A Well I would say
there is not any. Possibly
there might be some in
1982 high water.

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But then the land in this section of country about Butte Creek has little or no sediment on it

Q Does not Butte Creek come right in here?

A No.

Q Where does it come?

A It comes in altogether below where I was

Q How far below French Crossing? A I was below French Crossing

Q Does not Butte Creek come in below French Crossing so that the two join at the Sink and when there is high water do they not join there?

A Perhaps they will join in high water

Q Is ^{not} there the Centre of the stream when there is any stream at all?

A I never was there in high water

Q You do not know then whether it is or not? A No.

Q Where you a witness in the Keyes case? A I was.

Q This canal ends in low ground does it not?

A There is not much depression in the ground where the canal ends

Q Is it not considerably lower — A ~~cut's~~ It ends in a line of sloughs, what has been a line of different sloughs running through the country but they are almost filled up so that now you would hardly run there were any sloughs there. There is quite a wide strip of land

Q Is there not from that a gradual rise towards the East and a slight one towards the West, and is it not a portion of land that in the earlier years was always covered with water in the

winter time with the exception of those very dry seasons?

A. I have not known the land only for about ten years.

Q. Well in that time, in that ten years that you have known it, has it not always been covered with water whenever there has been any considerable amount of water in the river?

A. Oh no.

Q. Was it covered last winter?

A. Yes.

Q. Was it covered the winter before in the winter of 1880?

A. It might have been for a short time.

Q. Has there been any winter since you have known it when the Sacramento has come up so as to fill its banks, let alone run over, that this land has not all been covered by water?

A. Perhaps it might have been covered most every winter for a few days - a very short time - a day or so at a time.

Q. A day or so at a time?

A-Yes.

Q-You say you have known it for ten years? Was it not in 1872 and again in 1876 covered for more than two months?

A-No.

Q-You say no?

A-In 1872 it was covered, ^{I think} perhaps for 15 or 20 days at one time. In the winter of 1871-2 our whole country was covered - that adobe - mostly.

Q-Was it not again in 1878 covered for more than two months?

A-I could not say as to the time.

Mr. Hart - You say you are a farmer. Have you any other occupation?

A-I am one of the members of the Board of Supervisors of Butte County.

Mr. Belcher - That is not in Re-direct examination.

The Court - It is not of any consequence any way.

Mr. Belcher - At what price did you sell your land?

A-Thirty eight dollars an acre and three dollars for plowing. And I withdrew my suit that I had against the mining Company at

that time for damages.

Mr Hart- How did you happen to get \$3.00 an acre? What reason did you have?

A- I sued them for damages for chickens.

Mr. Belcher- What did you pay for the land?

Mr. Hart- That is entirely immaterial.

A- A portion of it I paid two and a half and a portion of it \$0.00 an acre for.

2- How long before you sold it?

A- I settled on my Government land in 1870. That I paid two and a half dollars an acre for. The Railroad land I bought in I think 1874 and I sold it in 1878. I think so, I think it was 1874 I bought it.

Mr Hart- Who did you buy this land from?

A- The Railroad land from the Railroad Company and my Government land from the Government.

2- At graded prices?

A- Yes; the Railroad land was graded at \$10.00 an acre.

2. Who did you sell it to?

A. To the Spring Valley Company.

2. State what it was that enabled you to get \$38.00 an acre. State what the consideration was between you and the mining Company.

Mr. Belcher - We object as not in Re-direct-Examination.

< Objection overruled, defendant excepting >

A. They covered up a wheat crop for me from the breaks of that canal, after entering into a contract that we should give them a strip of land to run their canal on. And I sued them for damages. We came into Court and they compromised and paid me that price and I withdrew my suit.

Mr. Belcher - We move to strike ^{out} that answer.

Mr. Hart - State whether or not the land was worth more or less than \$38.00 an acre before the slickens was put on it?

Mr. Belcher - We object to that as leading and not in rebuttal.

Mr. Hart- What was the value of the land before the slickens went on it?

Mr. Belcher- We object to that as not in re-direct Examination.

< Objection overruled, defendant accepting >

A- Land at that time was worth - do you want to know the price of the land?

Mr. Hart- What that land was worth?

A- At the time I sold out?

Q- No. Before the slickens was put on it. Without the slickens what was the value?

A- About \$25⁰⁰ an acre.

Q- What was it worth with the slickens?

Mr. Belcher- We object on the ground that the witness has already stated what he sold it for and what it was worth.

A- It was not worth anything.

Mr. Hart- You say it was not worth anything with the slickens on it?

A- No; I tried to farm it for two

years and could not produce anything in it.

2 What was the crop worth per acre that you sold to the mining Company?

Mr. Belcher - We make the same objection

Ex

< Objection overruled, defendant excepting >

Mr. Hart - That is, that they destroyed for you?

A - Well it was worth \$15⁰⁰/₁₀₀

2 \$15⁰⁰/₁₀₀ an acre?

A - Yes.

2 What was the cause of action that you released? What did you sue them for?

Mr. Belcher - We object on the ground that the record is the best evidence and the only competent evidence, if this is proper in redirect examination at all.

Ex

< Objection overruled, defendant excepting >

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Mr. Hart - What was the amount you

sued them for - the damages?

A \$5,000?

Mr. Belcher: You say that land was worth nothing do you?

A It was worth nothing to me, I could not produce anything on it.

Q Do you know whether that land has been since sold by the Cherokee Company or the Spring Valley Company?

A I do not know whether it has been sold or not.

Q Do you not know that it has been sold and for considerable more than \$25-⁰⁰/₁₀₀ an acre?

A No, I do not.

Q What?

A I do not.

Q Has it changed hands?

A Not to my knowledge?

Q You do not know whether it has or not?

A No.

Q Did you say that the crop was worth \$5-⁰⁰/₁₀₀ an acre?

A Yes.

Q Do you not know that the crop, the very crop that was covered there was pretty nearly gone before there

cause any sediment on it at all?

A-No.

Q-Is it not true that there was but very little grain raised that year on all that adobe land?

A-No. There were good crops of grain raised that year.

Q-What year was it? Was it not in 1878?

A-I think the crop that I sowed for was the crop of 1877.

Q-Was it not the crop of 1878?

A-I am pretty positive it was the crop of 1877. I know it was not 1878.

Q-It was the crop that was sown in the fall of 1876-7?

A-Yes, would have been harvested in 1877.

Q-And not the crop that was harvested in 1877-8?

A-No. I could not swear positively to the year, but I think so. I am very positive.

Q-Do you not know that the Spring valley company has been selling the same kind of land as that lying along the banks of that canal, and of that have been covered with sediment

for more than \$40⁰⁰ an acre.

Mr. Hart. We object as irrelevant, and immaterial and not in cross-examination.

The Court. If it is the same quantity of land I suppose it bears on his opinion as to the value of this land.

A. I do not know. I do not know of any land that they sold for that price.

Q. Do you know of any land that they have sold at all?

A. I know that they are offering their lands for every -

Q. (Intg) I asked you if you knew that they had sold any land at all?

A. No. I do not know.

Testimony
of
G. F. Allardt

Cross-Examination resumed.

Mr. Belcher - We were examining about Stat Creek if I remember. How long is Slate Creek approximately from the head of the mining upon it at Whiskey Diggings to its junction with the Yuba?

A- ~~measuring~~ About 22 or 23 miles.

< Here the witness is temporarily with-
drawn. >

Testimony
of
W. S. Green

Called for Plaintiff in rebuttal Sworn.

Mr. Hart - Where do you reside?

A - Colusa.

Q - What is your occupation?

A. At present the publisher and editor of a news-paper.

Q. How long have you lived in Colusa County?

A. I have live there since July 1850

Q. Continuously?

A. Well, pretty much continuously, I was away fifteen months at one time.

Q. What has been your occupation since you have been there? State it generally.

A. Well I have been farming most of the time and surveying.

Q. When were you farming and where in Colusa County?

A. I commenced farming in 1851 and 1852, I planted a vegetable garden in 1850 and 1851 and sowed some wheat in 1851 and 1852, but did not commence farming on any large scale until 1853-4 and from that up to 1855 I was on a farm - I mean until 1863 I was on a farm.

Q. What part of the County?

A. I say I planted some vegetables - a few acres of vegetables in 1850 and 1851 and in 1851 and 1852 I sowed

three or four acres of wheat.

Q Where was that?

A. Immediately right adjoining the town of Colusa, and then about 1853-4 I went out near the foot-hills and sowed some wheat.

Q How far was it to the North or South West of Colusa?

A. A little South.

Q A little South of West?

A. Yes.

Q How far north of the town of Williams?

A. Well it was on the Sacramento Valley. There I farmed on Grand Island one year, 1862 and '63 and 1863-4 I had some farming operations on Grand Island, that is about six miles below Colusa.

Q How far into the mountains is it from the foot-hills of the Coast Range to the west boundary line of the County of Colusa if you know about how far?

A. How much hills do you mean are there?

Q. Yes sir.

A. Well I suppose some places in the lower end of the County it is

not so wide, perhaps 12 miles at the lower end of the County from that up the widest place would be 25 miles in a direct line

Q How large would you say is the drainage area of the Sacramento river on the west side in Colusa County from the North to the South boundary line of Colusa County?

A Well all the drainage does not come into the Sacramento at all.

Q But I speak of the drainage, that portion which does drain into the Sacramento River directly or eventually.

A There is no part of the County except Stony Creek that gets into the Sacramento River.

Q Until you get below?

A There is no part of the County that ever gets into the Sacramento River except Stony Creek. Stony Creek heads to the west at Colusa running North about 35 miles and enters the valley and then South to the river.

Q Where is the head of Stony Creek?

A Almost west of the town of Colusa.

Q Where with reference to the mountains

at any point?

A- It heads - one of the principal branches of it heads near what you call Mount St. John a little North West of the town of Colusa. Then there is a little Stony Creek heads a little South of that and small creeks west of Colusa - Indian Valley Creek.

2 State whether or not Stony Creek running through the mountains there has any considerable number of tributaries in the mountains?

A- yes, sir.

2. Can you name any of them?

A- Well, the main Stony Creek coming down the mountains near Snow mountain or Little Stony Creek that enters it from the East, Indian Valley Creek from the East, Salt Creek, Elk Creek what we call Grindstone Fork and at the North Fork of Stony Creek are the principal ones except smaller branches.

2. Can you state approximately the drainage area of Stony Creek and its tributaries in the mountains there?

A- Yes, sir. It is 35 miles from North to South. It runs North nearly 35 miles and I should think the drainage would average 18 to 20 miles in width.

Q- On each side?

A- No, the whole width. That is from the summit of the ridge there is a ridge running North, East of Storey Creek, a range running north and a little east and creeks from that ridge run west into Storey Creek and that ridge continues to Storey Creek and cuts this ridge in two at the North line of the County. Those creeks running west into the creek are very short creeks because they are creeks that run near the base of that ridge. The elevation is perhaps 15-hundred feet above the valley, the ridge on the east side of Storey Creek. Then the drainage from the summit of the Coast-range was longer creeks that run in from the west.

Q- Do you mean to say that there is an elevation of five hundred feet

above the valley through which Stoney Creek flows?

A- No sir. Not the Valley through which Stoney Creek runs, the valley of the Sacramento - 12 or 1500 feet.

2- Then on the other side you say what?

A- The creeks are longer; they come in from the mountains. They rise from the summit of the Coast Range Mountains and some of those creeks are 12 or 15 miles long probably.

2- Do they run down the side-hills there?

A- Yes, sir.

2- Is that the fact on both sides or only on the West?

A- Well it is principally on the West. There is a very little drainage for Stoney Creek from the East because the Creek runs close to the base of this Eastern Ridge.

2- There is nothing but short creeks?

A- Yes. And usually only in high-water.

2- What is the nature of the soil through which the Creek runs - Stoney

Creek?

A- It is alluvial soil and sand.

Q- Have you ever been in the basin, the drainage basin or the drainage area of the American river over in the Sierra Nevada mountains?

A- No, sir. Never.

Q- Now describe as nearly as you can, the character of the top soil there in the Coast Range through which this creek runs as to its texture, its hardness and its liability to wash?

A- Well the soil on the hills if plowed is very subject to wash.

The ridge on the East side of the creek is chaparral. The soil is soft, very soft and where these vacant places in the Chaparral are it washes into gullies very easily. A great deal of chaparral on that ridge. Then there is a large quantity of farming land, land that is cultivated along towards the head of the Creek in what we call Indian Valley and the Valley back of Stoney Creek, and there are some rolling-hills nearly west

of the town of Colusa. This is all more or less loose soil, no solid rock there.

2- How far do the rolling hills continue after you get out from the mountains?

A- They do not continue at all after you get out. They are continuous between the Eastern ridge and the Coast Range. There was some rolling land that was cultivated.

2- About how much of that rolling land is cultivated between those ridges there?

A- Well level and rolling land together there are perhaps from 50 to 75 farms in the mountains that are cultivating the land.

2- How large are those farms?

A- Well they are not large farms; no very large farms there. Some of them cultivate - I believe the largest farm there would not be over a couple of hundred acres. I could not say how large the largest farms are, but there are small farms.

2- As compared with farms in the Sacramento Valley?

A- Yes, sir. Small farms. But there are a number of farmers living there and all cultivating more or less land.

2- Where does Stoney Creek come out, at what point of the mountains?

A- It comes out of the mountains at the line between Colusa and Tehama just at the line a little above in Tehama County—above the line.

2- What is the nature of the country after you come out of the mountains for some miles as to its being flat or rolling?

A- Well the Stoney Creek has a valley, it has changed back and forth—Stoney Creek is changed back and forth there; it is sometimes on the west side and sometimes the other, principally on the south side. It is more or less of an alluvial sand and gravel, and bottom, but until you get nearly to the river the rolling hills come down and in fact just the creek to the river; there are more or less, you could hardly call them hills,

the elevation is not probably over 20 or 30 or 40 feet, the highest of them.

Q. Do you know whether or not the lands along there, those hills grind through the little ravines between them into Stoney Creek?

A. No, sir. Hardly any of them enter Stoney Creek.

Q. Well on one side they do, do they not, the side next to Stoney Creek?

A. Well there are some of them enter into there. There is a creek that enters into Stoney Creek; I think there is only one creek that comes into Stoney Creek after it comes into the Valley.

Q. What Creek is that?

A. That is what we call Hembright Creek. It is the only creek that I can remember.

Q. Where does it come from?

A. It heads in the low hills, this ridge that ~~is~~ ^{is} ~~spoke~~ ^{is} of running west on the East side of Stoney Creek; It is cut into by Stoney Creek some six or seven or eight miles perhaps in a direct line from the

valley. Then there is a succession of low hills mostly bald hills, in the District of country from just south of the town of Willows up to Storey Creek there sets in more or less rolling hills and some creeks enter that rise in the rolling hills and in the ridge east of Storey Creek running towards the plain and one of those creeks that makes in from the hills runs into Storey Creek after it gets into the valley.

2. How far does that creek run through the hills?

A. Ah perhaps six miles.

2 Do you know whether there is any farming on its base?

A. Yes there is some farming, not a great deal though.

2 How long has there been farming on the banks of Storey Creek in the mountains?

A. Well there has been more or less farming there since I first knew it, I first went upon the Creek there in 1835. I am not certain which was the earliest that I saw

it but there was some little farming there then and it has increased more or less.

2. How extensive has been the stock raising on the banks of that creek?

A. Well there has been a good deal of stock along on the creek.

2. What kind of stock have they been raising on that creek?

A. Sheep, cattle, horses and hogs.

2. Could you approximate the number of sheep that has been ranging there?

A. I do not think I could. There has been a large number but I could not approximate it.

2. How long have they been raising sheep there and pasturing them along the banks of the creek and in the mountains?

A. I could not say as to sheep longer back than 1860. If there was any back of 1860 I could not say.

2. You can go back to 1860?

A. So far sheep about that far back I think. But I could not go ^{back} any further

than that as to sheep I think.

Q Do you know who have been the principal sheep men running their sheep there?

Mr. Belcher. Is it necessary to go into detail?

Mr. Hart. Simply for the purpose of ascertaining the number.

The witness. I do not think that I could get the number ⁱⁿ that way.

Mr. Hart. If you could mention the names of the men we might get them.

A Well I do not think I could name near all of the men now at this time. I do not think I could name near all of the men that have been raising sheep there.

Q Can you name one?

A Ah I could name several. I can name Mr. Warren Green of Mansville.

Q How many sheep did he have?

A. I do not know how many he had, I do not know how many any of them had in fact.

Q Well approximately how many men have been having their flocks

of sheep up there?

Mr. Belcher Subject to that, an approximation is of no value.

Mr. Hart - You could not approximate the number of men?

A. No, sir. I have just been along through there and I know that going through that there is once in a while over two or three miles you would find a band of sheep and some of the men I have known and some I have not.

Q. Did you know Johnson and his partner up there?

A. Yes.

Q. How far were they from Storey Creek?

A. They were on Storey Creek. Felton had some sheep; Pew and Gardiner have sheep there.

Q. And George Wase; do you know whether he had sheep up there?

A. Yes.

Q. When did cattle raising first commence on the banks of Storey Creek?

A. Well there were cattle there before the sheep. There were

cattle there when I first went there in 1835 and 1836, There was quite a number of cattle in there.

Q When you say quite a number, do you mean large bands of cattle?

A Yes. Mr. Hendrick who lived on the north Fork of the Creek had quite a large number of cattle in there when I went there and had been there sometime before that.

Q Can you approximate the number of cattle running there?

A No sir, I can not.

Q You could not tell whether it was five hundred or ten thousand?

A Since about 1860 the range of that country there has been pretty well eaten off for either cattle or sheep, something of that kind since about 1860, it has been pretty well stocked, the whole range with some kind of stock.

Q Have there been any horses there?

A No sir.

Q Or hogs.

A. There have been hogs but I do not think there have been any horses raised there. I do not know of many.

Q. Has there ever been any mining on that creek? A. No, sir. Not that I have heard of.

Q. What was the character of the water in the creek when you first knew it?

A. Well it was clear up where it runs in the mountains. It runs in the summer time - It is dry down at the river always and as it begins to get low it gets clear, entirely clear. It did when I first knew it and does yet.

Q. Has there been any change in the stream since you have known it?

A. Not that I can see.

Q. As to its depth, bottom, bank or the character of its water?

A. No sir. Nothing that I can see.

Q. How is the stream in the winter time as compared with the stream in 1830 in cleanness? How is it as compared with the Sacramento River.

A. I have not seen the stream in the winter time since - It has been eight years since I have seen the stream in the winter time.

Q How was it then?

A There had been no change up to that time from the time I first saw it. I first saw it in the winter time though about 1867 and '8 perhaps.

Q Describe the water?

A No - 1863 or '4 in the winter time. Well the creek would be muddy.

Q What do you mean by "muddy"?

A Well it would have the washings of the soil in it. It carried it down to the river. It was muddy the last time I saw it.

Q How did it compare with Feather River?

A It was different colored water from the Feather River - different colored mud.

Q How did it compare in quantity?

A It was not so muddy.

Mr Belcher. Object to this testimony. It is not in rebuttal.

Mr. Hart. We propose here to show something as to the character of the Sacramento River and its tributaries where there is no mining.

The Court. It is claimed that

sediment is carried by other streams than mining streams and I presume this testimony is designed to show that it is not.

Mr. Hart. Yes sir. We want to find out what kind of sediment sheep send down to us. We do not propose to show that they do not send anything down but we propose to show that they do not send down any such quantity as is claimed on the other side.

Now describe as nearly as you can to the Court without simply saying that it was muddy, what kind of water comes down that stream and has ever since you have known it during the times of high-water freshets.

Mr. Belcher. I object to that. He asked him to describe the character of the water. That is immaterial. We want to know the kind of sediment that comes down and that is another thing.

The Court. That is another way of asking it.

As I do not know how to answer

it, to describe it precisely, when it is very high of course there is a considerable amount of mud in it. How much mud it has I do not know but it is what I would call muddy water.

2- Well they call the Father River water muddy?

A- It would settle in a glass but it was very drinkable water at any time to take out the water and drink it during those years at the time when it was the muddiest. It would perhaps be as clear as the Sacramento water at Sacramento City after they attempted to settle it for drinking.

The Court - Here is some water here (pointing to the water pitcher)

A- It is a little bit muddier than that sometimes. It has a different color.

Mr. Hart - When you say that it is muddy do you mean to say that it carries large quantities of mud in suspension or do you mean to say that it is slightly roily?

Mr. Belcher - Object to that. Let the witness tell his own story

The Court. Try and describe the degree of muddiness.

A. I could only do so by comparison because I have never undertaken to settle it to see how much would settle in a given quantity. It would become so just after a rain, for instance on the day after a rain it would be muddy and in a day or two although every year it would commence to get comparatively without mud, there would be very little material in suspension. A week after a rain, a week or ten days after a rain or perhaps a week after a rain you could scarcely perceive any mud at all.

Q. State the amount of mud that it carried?

A. I could not tell you the relative quantity, I do not know how much mud the water would carry.

Q. Does Storey Creek ever overflow its banks in high-water?

A. Yes in some places next to the river. Yes.

Q. Down next to the river?

A. Yes. About two miles before it gets to the river it overflows its banks.

Q. Do you know whether or not it deposits any debris or ever deposits any debris or sediment of any kind upon the land adjoining?

A. That it overflows?

Q. Yes.

A. I have never noticed any. I have been over it, over the overflowed part right after the overflow and there would be very little if any.

Q. How much could there have been there without your knowing it?

A. A quarter of an inch deep perhaps.

Q. There could not have been any more?

A. No sir.

Q. Do you know of any other streams that put into the Sacramento River North of Colusa from the Coast range?

A. House Creek is pretty much the same kind of a creek as Story Creek.

2 Where is that?

A- It is just North of Stoney Creek. It rises in the Coast Range and flows into the Sacramento just below the town of Tehama.

2- How far does it flow through the mountains?

A- I am not familiar with the creek in the mountains.

2- Do you know whether there is any farming or stock-raising on its banks?

A- There is in the low-hills. I have not been along there for 12 years perhaps on Thomas' Creek to the hill.

2- Now about the Sacramento River, what was the Character of that river when you first knew it in 1831 I think you said it was?

A- 1850

The Court - At Colusa?

Mr Hart - From the mouth of the Feather river North?

A- It was a clear river in the Summer time.

2- And how in the winter?

A- It was about like Stoney Creek in the winter. It was muddy.

2. Do you mean roily?

A. Roly. It was carrying nothing particularly. It would carry sand. For instance the river would break out of its banks and immediately where it broke out of its banks - if it was running on a ridge and if it broke through the rim anywhere it carries a considerable body of water out and for an hundred yards or such a matter it settles sand to the right and the left of that break. There will be sand and other sediment that would settle there. I have seen it settle perhaps a couple of feet deep from the breaking of the river out for one hundred yards. It would run off in a week or two.

2. What was the character of the banks of the river up there when you first knew it? Was it a narrow or a broad river?

A. It was about four hundred feet wide. There has been no change in the Sacramento river that I have seen.

2. There has been no change in it?

A. No change whatever.

2. Has there been any change in the Sacramento River at any point above the junction of the Feather with it?

A. No. No change but what has been effected by the Feather river immediately above the mouth, not until you get to the upper end of the county, then there is some change.

2. Do you know whether that river during the time you have been there has been in the habit of overflowing the basin on the west side of it and between Colusa and Night's Landing?

A. Yes.

2. Now describe to the Court the nature of those overflows, as to the current of the water and the amount of filling etc.?

A. A high point of land puts into the river at Night's Landing. Above that and from 10 miles below the mouth of Storey Creek the river runs on a ridge. The outflow of the river then is into a trough between that and Night's Landing - Between

this high land at the mouth of Storey Creek and ten miles below Storey Creek at the high point at ~~Nights~~ Landing. The high land at Nights-Landing cuts the trough in two. All of the streams that rise in the hills east of Storey Creek run into that trough as well as all the outflow from the Sacramento. It runs into this trough at high-water.

Q- How many streams are there that run into the trough there besides the outflow from the Sacramento in Colusa County?

A- Perhaps there are fifteen or twenty.

Q- Twenty streams?

A- Fifteen or twenty.

Q- Do you know whether generally there is stock-raising and farming on the banks of those streams - the twenty streams you speak of?

A- Yes on all of them.

Q- To what extent?

A- Well it is all grazed off or farmed all of it. All the territory.

Q- How much of territory is there

there?

A. Between the bottom of the trough and this ridge, the top of the ridge, east of Stoney Creek would average I should say, after looking at the map, 15 miles

2-15 miles square?

A. 15 miles wide. The distance from Wrights Landing to the upper one is perhaps 75 miles. 75 by 15 would be the drainage into the trough from the west perhaps.

2. How long after the flood comes before this basin that you speak of or this trough is filled?

A. With water.?

2. Yes.

A. It is according to the size of the flood. Sometimes it will fill up in a very short time.

2. Does it remain full for a considerable time?

A. Some years it does

2. When it remains filled how does the water operate? Is there a current across it all the time?

A. It is dead water.

Q. How long does the water remain dead-water over the entire drainage area there that you have spoken of?

A. Until the water falls at Nights Landing sufficiently to let it out. It does not fall at Nights Landing as quick as it does at Colusa.

Q. How long does it remain there?

A. It remains there until it gets clear ordinarily, until it gets comparatively clear before it gets into the river.

Q. It settles everything there?

A. Yes in the trough.

Q. How much deposit has been made over that entire drainage area in two years, in this basin?

A. Well I judge it would cover it about half an inch.

Q. It would be covered about half an inch?

A. No not an average.

Q. What is the character of the soil as compared with the Stony Creek country that you speak of? What is the nature of the soil through which all these creeks run draining the

Coast Range mountains?

A. Generally sandy soil. In the hills it is loose and the land will crack. The hills will crack open before they are plowed. Towards the upper end of the county they are rolling hills and wild oats grow upon them. And the soil is loose and will crack. And towards the lower end particularly there are some rocks. Some of the hills are rocky.

2. Take the east side of the river. State whether or not there is a basin on the east side?

A. Yes.

2. What stream comes into that trough or basin?

A. Butte Creek comes down into that. All the streams below Chico Creek down to Feather river from the Sierra Nevadas run into that trough.

2. Is there any mining on Butte Creek?

A. I think there is I do not know. I have never been to see.

13022 2. Do you know whether there is

any mining on any of the other creeks up there?

A. I have never seen any mining there.

Q. Did you see the canal?

A. Yes once.

Q. From the Cherokee mine?

A. Yes I think so.

Q. What is the nature of the country through which Butte creek runs as compared with the country through which Stony Creek runs?

A. In the foot-hills,

Q. In the mountains?

A. I do not know how it is in the mountains.

Q. In the Valley what is the nature of it?

A. It runs through the bottom of this trough which is black adobe after it comes into the valley, in the bottom of the trough. When the small overflows, it being on the ridge and higher than Butte creek it runs back into Butte Creek.

Q. State whether the water of the Sacramento river gets into this

trough on the east side into which Butte creek runs?

A-Yes, That is what I have just stated.

2. State whether or not the water ever becomes still water as it does in the basin on the other side at any point between the North end of the Buttes and the South end of the Buttes?

A. That is a very small area that you have got there. It becomes still north of the place where Butte Creek puts into the tules of Sutter County. I will have to explain there: there are two basins on the east side and just where you asked me if it is still there is a strong current right past the Buttes. The Sacramento river runs within about two miles and a half or three miles of the Butte Mountains, Butte Slough of which General Bidwell spoke puts out from the Sacramento river and runs towards the Buttes making a high bank on the East side. It comes within a quarter of a mile in the direction of the Butte Mountains

and it turns to the South and runs into another basin. This creates a dam, it makes a dam above Butte Slough so that abreast of the Buttes there is always a current, always a strong current when the water is up and yet above it is still water, pretty still.

Q. Is it as still as it is in the west basin?

A. No, sir.

Q. Does it remain still for so long a time?

A. No, sir. It does not.

Q. Do you know whether or not any considerable amount of debris has been deposited in the East basin into which Butte Slough runs?

A. Yes - Butte Creek.

Q. Into which Butte Creek runs?

A. Butte Creek below what is called French Crossing that Mr. Belcher referred to - that is about the only Ford on the Creek - it was a very deep creek all along until the mountain commenced, it was in some places, I put down a four

pole chain and did not get to the bottom of it.

2 When was that?

A - In 1861, I was segregating Swamp land. That creek along for several miles of it is now full and a great many of the sloughs on either side of it that were deep sloughs originally, are full of this debris - red mud, not the color of the agricultural land at all but red mud, and on the bank - on each side of the creek there are large quantities of this settled, cracked and baked up mud.

2 How deep is the filling in this basin with debris outside of the Creek?

A. When I saw it last there was very little filling - some two years I think ago - about two years ago. Since then I have not been there. But there was very little filling on the outside of the sloughs and the creek then.

2 How deep is the filling in Butte Creek there?

A. It has filled the creek full.

Q. State whether or not formally there was a heavy current through there?

A. No, sir. It was deep but there was not a heavy current. The current stopped above the French Crossing and when it came down there was no fall and it gradually went off in the basin where it lost itself entirely just before it got into Butte Slough. There is no channel of the creek at all and it is hard to trace the channel of the creek.

Q. Can you notice south of the point you mentioned of the sides each year after a flood or have you been there any year after a flood to see whether or not when the flood goes away it leaves a deposit of sediment?

A. No, sir. I have not been there.

Mr. Belcher object to that question. It is leading.

Mr. Hart - He has answered in the negative and it therefore makes no difference.

Mr Belcher- I object to it any way.

The Court- Strike the answer out.

Mr Hart- Strike it out then.

Mr Hart- State whether or not at the town of Colusa you have had occasion to investigate the question as to the amount of filling in the river?

A- I do not think there has been any filling at Colusa.

Q- How do you know there has been none?

A- Well from general observation and examination in building a bridge there this year.

Q- What did you find there?

A- I sounded across there for the bridge. The bridge runs parallel-

Mr. Belcher- If there has been no filling there certainly an explanation is not necessary.

The Court- He has made some investigations however and is proceeding to state the result.

A- The bridge runs parallel with an old river channel the bottom of which was cement gravel and

we found in driving the piles for the bridge that this cement gravel was still on the top and that it was hard gravel across the main channel of the river.

Mr. Hart. Then the whole area of country which is covered by the water - the flood water of the Sacramento river and not covered by the waters of Butte creek is there any filling in that whole country? any covering of sediment?

A. At the debouchment of those creeks they carry their delta each year further into this trough into which they run, on both sides. They encroach each year on the trough nevertheless but a very short distance, say a quarter of a mile below the debouchment of the creek. I think you will hardly find any sediment in the trough - but very little filling.

2 Now when you say they carry their delta out how much do they build it out each year?

A. It is according to the length of the flood. If there has been a large flood some of them build out their

delta but I think on an average they have not gone out over one hundred feet - 80 or 100 feet.

Q - Beyond the place where the Creek puts out?

A - It is extended every year but the average would not be that because there have none of them that have gone ^{out} 1500 feet since I have known them.

Q What kind of soil does this sediment that comes down there make? this little amount of sediment that you have just mentioned?

A. Some of it is sand; Some of it makes excellent soil and some of it is not so good where there is too much of it.

Q How does the filling or at least the condition of the Sacramento at Colusa compare with its condition above there, up towards Red Bluff and St. Johns?

A I am not so familiar with it up there.

Q How far up the river are you familiar with it?

A Well through Colusa County

more or less.

Q. I forgot to ask you what is the character of the water in the river in the summertime at that point?

A. It is almost entirely clear.

Q. Have you seen any difference in it since you first became acquainted with the river?

A. In the summertime?

Q. Yes.

A. I have not.

Q. Do you know whether or not there was any mining on Deer Creek last summer?

A. I do not.

Q. I would ask you whether you noticed a sudden change in the Sacramento river at one time and if so state what that change was?

A. The first rise that came down last winter was the ordinary color of the water. The next day I noticed that it was red. That was the first time that I have noticed that the whole river was ~~colored~~ red as that mining dirt. At the next rise, after the next rise - I called the attention of quite a number

of gentlemen to the fact. And I said, "Look at the river to day and you will find it as it always was". This is the rise of Stoney Creek, the Creek below the mine coming down". It was then of the consistency it had been for years before and of the same color and all. The next day everybody remarked the difference in the color of the water as the rise came down from Clear Creek and the creeks above the creeks on which they were mining. We all noticed the difference in the color of the water. Last year I noticed the sediment on the sand-bars. We could see a fine coating of this red sand for the first time - this red sediment. That is the first time I saw it.

Q. After the river went down you saw them?

A. As the river fell it would leave along its banks this red sediment. It was perhaps a quarter of an inch thick along on the sand bars.

Q. Did that ever occur in Colusa before in the river at that point?

A. I have never seen that. I think

it never had been seen there before.

Q- How long did the river continue in that red condition?

A- It stayed more or less until it got down pretty well 8 or 10 feet in its banks. It stayed red more or less all the time until another rise would come from the floodings of these lower creeks.

When they would get into it the water then would change back to the color of those creeks that came into it, the lower down creeks.

— " —
Cross-Examination
of
W. S. Green

Mr. Belcher- Mr. Green, you went to Colusa you say in 1830?

A- Yes.

Q- And farmed there and had a little garden patch in 1830, '31 and '32?

A- Yes.

Q- That was close to the town?

A- Yes.

Q- When was it that you went

to Grand Island?

A-I went to Grand Island in the winter of 1862-3.

Q-How long were you there?

A-I was there myself one year I think I farmed there and the next year I rented 1863-4.

Q-1862-3 and 1863-4?

A-yes

Q-And then you went back into the foot hills?

A-No sir, Not after that. I went to the town of Colusa after that.

Q-When did you go to the foot-hills

A-I went to the foot hills in 1853-4.

Q-Were you there more than one year?

A-I farmed there two years.

Q-1853-4?

A-Yes, I went there in 1853-4 and was there in 1854-5.

Q-Whereabouts in the foot-hills were you?

A-I was not in the foot hills at all. I was near the foot hills.

Q-Whereabouts near the foot-hills?

A-I was near the foot-hills south

west of Colusa - to the west of the town of Williams on Fresh Water Creek between Fresh Water and Salt Creek.

Q How far from the foot-hills?

A Two miles perhaps,

Q Since that time you have been acquainted with all these creeks that put out from the hills there you have been more or less familiar have you not?

A Yes,

Q Up to the present?

A Yes,

Q Or at least up to within the last three or four years?

A Almost to the present

Q What is the creek first below Williams?

A Cordinas

Q That is Cordinas?

A Yes

Q What is the next below?

A The next below that is - the next principal creek is Sand Creek; that is the next principal creek below,

Q Was it Sand Creek that in 1878 broke through the Railroad?

A. That is the creek,

2. That is the one that I had in my mind. Now you have spoken of Stoney Creek and of the country between there a distance beyond of seventy five miles North and South from the ridge at Nights Landing to the ~~ridge~~ at Stoney Creek.

A. Yes.

2. Stoney Creek it self you say runs from the time it leaves the foot hills on the ridge?

A. No, sir, it does not.

2. What does it run on?

A. There are red hills on either side of Stoney Creek. Red rolling land that does not overflow.

2. Down to its mouth?

A. Clean to its mouth.

2. How long?

A. I will tell you all about it: from the time it enters the valley the sand bottom is perhaps a mile wide. Then it gets narrow where the railroad survey crosses out at the town of Orland. That bottom land narrows to almost nothing and then

it commences to widen out again and until three or four miles above the mouth of the creek it is wider. The creek has there changed its mouth back and forth for about five miles to the river.

Q. It makes frequent changes?

A. It has substantially changed. It has made all that land there. It has never changed any since I have known it. It has run in the same place since I have known it. When it gets out there, when it overflows its banks it gets within three miles of the river. Then the water goes across and runs to the river below the mouth of the Creek?

Q. Is it not true that only a very small portion of the land to the south of it drains into it.

A. Very small. Yes. Very small and a very small portion to the north after it gets to the valley.

}

2. Then there is a ridge of land which makes a water shed near to the creek and following it all along from the Sacramento river until it reaches the foot-hills?

A. Yes. It is rolling land on both sides.

2. So that the water shed turns the water down Southward into the County and into the basin which you have spoken of, a very narrow strip of land draining into the creek?

A. A very narrow strip; only one creek running into it after it enters the valley.

2. And that a creek of only a short length?

A. Of only a short length.

2. Now that creek heads where?

A. It heads in the low hills, east of the dividing ridge which divides Storey Creek from the valley.

2. Now is it not true that there was practically no farming on Storey Creek or any of its affluents prior to 1880?

A. There was not a great deal there. There was some.

Q - Just enough to supply the wants of the few people that were there?

A - Yes.

Q - And that was all?

A - Yes. I should think about 1860 would be as early as there was generally farming there.

Q - Is it not considerably later than that before any general farming commenced? Is it not as late as 1867 before the plains began to be taken up even for farming purposes?

A - The plains were taken up for farming purposes about as early as 1834, there were a good many people farming there. But they left there and then it commenced there again about 1866-'67-'68 and the plains filled up.

Q - Then was when they commenced taking up land again?

A - Then was when they commenced taking up land again.

Q - About 1867 and '68 and from that up into the seventies?

A - Yes. From that up until about

1870 they commenced to put it all in. It was pretty much all in about 1870.

Q. Is it not true that farming on those plains practically did not commence until after 1865 or 1866?

A. Well it was not anything like as extensive as now.

Q. With the exception of the margins ^{of the} rivers there was almost no farming up to 1866?

A. Ah yes, there were quite a number of farms on the plains before '66. There was the Howard place and the Gibsons.

Q. The Gibsons are on the Fresh Water?

A. Yes.

Q. That was only a strip of land.

A. There were perhaps on the plains prior to 1866, 15 or 20 farmers; on the whole of the plains there.

Q. But those were right on the Creeks?

A. Yes, pretty much all of them.

Q. And with the exception of those on the creeks there was no farming there up to that time?

A. Pretty much none.

Q. Is it not also practically true that up to that time there was practically no farming in the country going into the hills?

A. Oh there was farming on the North Fork of Storey Creek several years before there was much on the plains.

Q. Where is that?

A. That empties into Storey Creek up about Newville.

Q. Is that in Newville?

A. No, about Newville. There was farming there.

Q. Was there prior to 1866 much farming even there at Newville?

A. No, not a great deal.

Q. It really did not amount to anything to call it farming?

A. It did not amount to much. Oh yes! Let me go back there. 1866 is too late a date to put the farming at in the Valley. Nearly all those valleys around Newville were farmed I should take it as early as 1862.

Q. There was not a stage going out to Newville to Colusa until long

after 1866 was there?

A- No.

2. Were there more than half a dozen inhabitants about Newville?

A - yes

2. Prior to that time

A- Yes.

2. Was there any grain raised prior to 1866 except for their own immediate consumption right there?

A- I think there was. There was grain raised there. They commenced there. That was the biggest settlement we had - around Newville - in the county, except on the river, along about that time; was the biggest farming settlement. There was more farming there. They farmed there before they farmed on the plains successfully; had more rain.

2. That was on the bottom land too was it not?

A- yes.

2. The farming land there at that time was confined to the bottoms?

A. at that time. At first it was confined to the bottoms and then it

took to the hills.

Mr. Hart. When did you say that was?

A. I should think as early as 1862. they had farmed there around Newville to a considerable extent. It commenced earlier than that, but there were considerable farming done there as early as 1862.

Mr. Belcher. Is it not true also that there were very few sheep either in the plains or in the valleys there prior to 1860?

A. No. There were a good many sheep there prior to 1860.

Q. Was not Logan and those men who lived right about him - Al'Brien and another neighbor of his - among the first that went there with sheep?

A. Talbot and Logan.

Q. Did Talbot ever have any sheep?

A. Not early, he did not.

Q. Has he since? Has he ever had any?

A. I am not positive that he ever did have any.

Q. Did he ever have any sheep at all?

A-I think not. There were Logan, O'Brien, Nye, Wilson, Murdoch, Brooks and Schooling.

Q Did any of those men go in there with sheep prior to 1860- anyone of them?

A Yes.

Q Which one?

A Wilson, Brooks & Schooling. were then I remember there with sheep in the foothills.

Q Did not Brooks and Schooling go in there subsequent to that time?

A No, they went in about 1855 I think 1835 or 1836. There were other bands of sheep in there but I do not remember the names of the parties that had them.

Q Are you acquainted with the place where Logan's house is?

A Yes.

Q How early were you acquainted with it?

A I was acquainted with it as early as 1836 I think.

Q When you were acquainted with it was the the stream then which passes that house running in the grass

or having a very slight channel?
Or was there any stream at all
in the summer time there?

A- No stream at all in the summer
I think. The water has raised
in all those creeks in the hills.
Where they had to dig to get
water to water their stock with
in those times when they first
went there, now there are running
streams all the year.

2- How deep is that creek now
past his house?

A- I have not been there for six
years perhaps.

2- How deep was it six years
ago?

A- I did not notice much change
in it.

2- Six years ago?

A- Yes.

2- Was it not eight years ago and
was it not anywhere from five to
ten feet in depth from his house
down until you got almost to
the plains?

A- Ah yes. It has always been a
big creek.

2 - Was there any cut there *at all* in 1836. Any channel?

A Always.

2 How much land has the sediment from that little creek carried down into the plains below? How much land has it covered with sediment varying from where it disappears or nothing up to the deepest filling?

A I do not know.

Mr. Hart. What little creek is that?

A Logan Creek.

Mr. Belcher Has it not covered more than a thousand acres?

A It may have done it, I am not certain about that.

2 To a depth of more than a foot?

A It may have done it, I am not certain about that.

2 Do you know where Logan's Brother had his place below?

A Yes.

2 640 acres of land there?

A He has more than that.

2 Yes, sir. But I had reference to a single section there?

A - Down that creek? No, I do not remember that place. I am more familiar with some of the other creeks down there of late years, such as Sand Creek. I was down the other day to that.

2 - Now let us come to Sand Creek? How long a creek is Sand Creek?

A - Sand Creek heads in the ridge that divides Bear Creek from the water that runs into the plains. Bear Creek is a tributary of Cache Creek.

2 - How long is its course?

A - That creek runs in the hills perhaps eight miles.

2 - Having a drainage area of about how much?

A - I do not think it has a very large drainage area.

2 - Not more than eight miles has it?

A - I do not think it has more than eight miles. And then the North - Cortinas Creek - comes to it very close on the north, and Salt Creek comes to it very close on the south

so that its area in the hills is not very large.

2 - How long a time in the year will the water run at all in the plains from that creek?

A - It only runs temporarily, directly after a rain. It does not run long.

2 - Never more than three days?

A - I should think not, I never saw it more than three days.

2 - How many acres have been covered by that creek to a depth varying from one to five feet in the valley, within the last ten years?

A - I do not think there has any five feet.

2 - Is there not a portion above the Railroad and some distance above there that is covered more than five feet?

A - I think not.

2 - Well what depth do you say?

A - I think the deepest filling that I saw there was not over a foot.

2 - Where did you see it?

A - West of the Railroad.

2 - How far?

A - I did not go directly to the

Railroad. It may have been more where it banked up against the Railroad.

2 How far west of the Railroad did you see it?

A. Half a mile perhaps,

2 How far beyond that before you strike the foot-hills?

A. Three miles; perhaps three or four miles.

2 Now from the point where you saw it to the foot-hills, or from the foot-hills into the Railroad, it spreads that material over on both sides does it not?

A. Yes.

2 Does it not spread it over much deeper where it first comes out into the plains than it does lower down? Is not that the ordinary course of things in every one of the streams which you have seen there?

A. Yes.

2 That the filling begins first where it debouches into the plains?

A. Where it first commences to overflow.

2 How wide is that stream where it comes into the plains when it is

in flood?

A. That creek when it comes into the plains and immediately where it comes into the plains? There is one point that I measured, It is I think in the neighborhood of one hundred feet wide and about 15 inches deep. Then just above there it goes out to five chains wide.

2. Suppose you go below there?

A. Below there it becomes wide again. It comes out and gets wide again.

2 How wide?

A. Two or three chains; it may be wider than that.

2 Then when it comes down again to where it commences to overflow?

A. Perhaps 100 feet again. And then it gets down to nothing.

2 Now has not that creek within the last 10 years covered about a thousand acres?

A. I expect it has a foot deep.

2 To a depth of more than a foot? or call it a foot?

A. Yes I think it has.

2 Is it not considerably more than

that?

A-Well I don't know, It might be as much as a thousand acres; I think not either. Perhaps a thousand acres a foot deep would be as near as I could guess at it now.

Q Now the creek next above that is Cordinas?

A-Yes.

Q How much is that covered?

A-I do not think it is covered so much as Sand Creek

Q But it has brought a great amount of sediment?

A-Yes. It is not covered so much although the drainage area is larger than Sand Creek.

Did either of these creeks prior to the running of sheep in those mountains bring down any sediment?

A-Yes.

Q That you saw?

A-Yes.

Q Prior to the commencement of any cultivation?

A-Yes

Q How much?

A Well I do not know. Perhaps half

as much as they do now.

Q. You think by the cultivation and the running of stock there, that they have very largely, all of them, increased it?

A. I think they have increased it.

Q. Have you been down to Oak Hollow Creek?

A. Only crossing on the Railroad.

Q. Never before?

A. Ah yes before. But I mean lately.

Q. You had seen that before?

A. Yes.

Q. When did you first see it?

A. I saw that in 1830.

Q. Was there any settlement on that creek at that time?

A. Not that I noticed.

Q. Do you know about how long that creek will remain up?

A. It remains up a very short time but I do not know how long.

Q. You say you have been there crossing it on the Railroad since?

A. Yes.

Q. What have you noticed since then?

A-I have noticed there is more sediment there than any creek I have known at all in the valley.

Q You are speaking now of one that is south of Dunnigan?

A Yes

Q You say more?

A There is more than any other creek I noticed in the valley.

Q What is a short creek?

A It is a short creek.

Q And only running a few hours at a time?

A I think so I don't think it runs very long.

Q How many acres do you say have been covered by that creek to any depth?

A I could not tell you, because of my only passing it on the Railroad.

Q Can not you see by your eye crossing on the Railroad, a thousand acres covered?

A I expect there is a thousand acres.

Q That was right there in your sight?

A Yes. All of these creeks where they loose their fall make deposits.

They come down from the mountains with a great fall and immediately where they loose their fall they commence depositing. Of course the valley was built up in that way once. Wherever they got in a level or approached a level they commenced depositing this material. This material would not reach the river and does not reach the trough to any great extent. It deposits itself where the fall decreases. There it commences depositing.

2 Is it not true that that creek has built a delta out into the tule?

A. Sand Creek!

2- No. Oak Hollow?

A I have never been there.

2 Can not you see on the lower side of the Railroad that it has covered a large area there?

A Yes.

2 As well as above it?

A Yes.

2 And from the Railroad can not you see down to the Tule?

A. No. I have not been able to see down to the Tule.

2- The next creek above, the one

just above Dunningan - how as to that?

A. I have not noticed much sediment on that creek, if any.

Q. What is the name of that creek?

A. Buckeye Creek.

Q. You say that you have not noticed so much there? Is it true in regard to that creek, where you have noticed it that right by the town of Dunningan there is a very large amount of sediment?

A. I have noticed some sediment about the railroad near Dunningan but I do not know where it comes from.

Q. Well just above? is it not apparent there?, even from the lakes of the stream itself, that it brings down an immense amount of sediment passing that point? and is it not spread out on both sides?

A. That creek heads up in the timber hills where there is more brush and it has not been farmed much lately. There is more chaparral on that creek and I do not think it brings down as much as Oak Hollow Creek. Oak Hollow Creek runs entirely through bald hills and the very soft character of soil, the softest

character of soil that I know of in any hills; And there is no timber or brush or anything on those hills to prevent it from washing.

Q- Is there not some brush on the hills that are drained by Oak Hollow Creek?

A- Not a great deal if any. It is only of Bald Hills. But this creek above Dunigan heads more in the brush; it is bushy land.

Q- Where you cross it on the railroad, what kind of bed has it?

A- Gravel, a gravel bed

Q- But it is all light gravel is it not?

A- No. Pretty good size gravel.

Q- And its banks of the same material?

A- It has gravelly banks.

Q- Gravelly banks on both sides. But does it not all have an appearance showing that it is of recent deposition?

A- No I think not, I would not be certain about it.

Q- Have you been down through Clarke's land following that creek down?

A. No.

2. Have you ever crossed Clarke's land there?

A. Not lately. Not since the Railroad has been built, except on the railroad.

2. Now all these creeks that came into the plains of Colusa - is it not true that every one of them as in the last ten years covered a considerable area of land from the point where it debouches into the plains, extending further and further into the plains every year? Have not they deposited a very large amount of material; even those little creeks that run but a day or two at a time?

A. They have all deposited more or less material. Some of the small ones have deposited more than the larger ones. Fresh Water or Willow Creek is the largest one and has more drainage than any other, but does not deposit I think half as much as Cordinas or half as much as San Creek, although it has twice the drainage area to it?

2. Now is it not true in regard to Cordinas that it has been chiefly pastured

for sheep?

A. For quite a number of years.

2. Say for the last ten years particularly?

A. Longer than that. There have been people living out on Cordinas pasturing it with stock or sheep or something for 25 years.

2. Were there any sheep there either on the Frenchman's ranch or on the ranch adjoining it on Cordinas prior 1880?

A. I do not remember. There were sheep on the head waters of the Cordinas at a very early date.

2. How many acres do you say Cordinas has covered within the last ten years?

A. I do not know. I could not state. It has not covered as much as Rand Creek I think. I have not had the opportunity of noticing particularly the quantity there as I have at Rand Creek. I was over that a few days ago.

2. Have you not been up Cordinas within the last five or six years?

A. Yes. Not up in the hills.

2. Not up through the hills?

A. No.

2- Is there not more than a thousand acres which that little creek crosses?

A. Corduroy Creek?

2 Yes?

A. Not to my knowledge.

2- What do you say it was five years ago when you saw it?

A. It makes very little deposits at the trough; but small, very small deposits indeed in the trough.

2 When you say into the trough, it is a considerable distance away from the trough to its point of debouchment into the plains?

A. Oh yes. As I was saying awhile ago they fall, as they come down into the plains, with a great rush, bringing down and carrying sand, small gravel and other tolerable heavy material coming with it. As soon as the fall ceases it commences depositing and deposits this material.

2- That is the theory of the the thing?

A. That is the fact of the thing as well as the theory. Now before it gets to the trough the ground becomes more sluggish and does not carry it into the trough.

2 That is, it deposits it before it gets to the mouth?

A Yes.

2 What I wanted to get ^{at} was how many acres had been covered to a depth of a foot to your knowledge. You say you saw it five or six years ago? How many acres would you say had even been covered by that creek to a depth of a foot?

A Cordinas Creek,?

2 Yes?

A I do not think there had been a great deal covered at that time. I do not think there had been a great deal of wash at that time. I do not know what there has been since but there had not been much before. The last time I was there I was where Ware and Gummalt have land just east of the Rail road, where that would deposit first the heavy sediment.

2 Do Gummalt and Ware own up to where that creek debouches into the plains?

A Not into the plains, But it does not deposit.

2 Within how many miles of it?

A Five miles. But it does not deposit much up there. It has good banks. Cordinas

has good banks up in the hills,

Q It begins then by filling up its channel there does it?

A Yes. All these creeks fill their channels up, run over a ridge, and in a few years make a new channel.

Q That is the rule in regard to all those creeks; that they change their course from time to time?

A Yes.

Q And that is the case with all streams coming into the plains as far as you know?

A Yes. I have not known of many which is in my own time. But you can see there have been changes.

Q Is it not also true that the amount of sediment carried by those creeks with which you are acquainted is more than trebled in amount since sheep began to be pastured and the hills began to be cultivated?

A - No. I think not.

Q Has not Stoney Creek sent down more within the last six years than it had prior to that time from 1830?

A - I do not think so. In 1850, I made a survey for a man on Stoney Creek

where it commences to overflow, there was a considerable deposit at that time. In 1836 there had been considerable new deposit. Very near the place where it makes most of its deposits now.

2- Is it not true of Oak Hollow Creek that it has deposited more in the last five years than in the preceding 25 years?

A. I think it is true of Oak Hollow Creek that it has ~~had~~ a great deal. I think it is true of that creek.

2- Is it not true of Logan Creek that it ~~had~~ deposited more in the last five, six or eight years than it had in all the years since 1830 prior to that time, where it debouches into the plains?

A. I am not posted on that Creek.

2- Do you know the creeks then above that, there is one that comes past Nye's place. Is it not true of that creek, that it has deposited more material into the plains within the last six years than it had in all the years prior to that from 1830?

A. I think not.

Q. Are you sufficiently acquainted with it to form any correct judgment?

A. I was over the deposits last summer, of course not with a view of looking at it, but they did not strike me as being very extensive deposits there. I went over it simply in a buggy last summer.

2. Whereabouts were you following the main road?

A. I went up by the way of German town and went from there to the foothills and back to the willows and back of the willows was the place we crossed the west of the deposit.

2. Where you simply crossed it or how far away from its debouchement in the plains?

A. That would be about a mile perhaps.

2. Is it not more?

A. A mile and a half.

2. Has not the lower valley of Stoney Creek filled ~~there~~ ^{very} largely with sand since you have known it?

A. Which lower valley?

2. I mean now the reach first above the river?

A. No sir.

2. Well, on the Walsh ranch?

A. No sir, it has not. The last time I crossed the Walsh ranch was about two years ago. I think it was about two years ago - it may possibly be three since I crossed it.

2. Where did you cross it on the main road?

A. From Chico to Orland I went up the creek. I think nearly all the wash of Stony Creek has gone into the river.

2. And it is true that it carries a very large amount of sand and sediment in the river each year?

A. I think it does; yes sir.

2. Is it not also true that large sandbars in the Sacramento have formed below its junction with the Sacramento?

A. I do not know that as a fact. There were sandbars there when I first knew the river. I think navigation is about the same that it was first except the snags ^{are} taken out.

2. Have not those sandbars increased and the river changed being turned over from one side to the other?

A. Oh, yes! there is a constant change — the river is ~~so~~ constantly changing its channel.

2. Do there a sandbar bottom on the mouth of Stony Creek on the same side as Stony Creek?

A. Not that I know of. There was not the last time I was there.

2. And right above Colusa, how is it there — has there a large sandbar formed there on the opposite side?

A. Yes sir. There was a sandbar on the west side of the river all the time nearly; and those sandbars change. The river changes from one side to the other.

2. The sandbar just above Colusa is formed there, covering what extent?

A. Well, there has been a change — perhaps 40 acres.

2. 40 acres filled with sand; — to what depth?

A. Well the river is just about the same width that it was; the river has changed.

2. I ask you about the sandbar. You give it an extent of about 40 acres. To what depth has that filled with sand?

A. The river has washed the sand

in on one side and filled the sand in on the other. The sand is perhaps on that 40 acres ten feet deep.

Q. What do you mean: That the river took the sand out of a ranch on ~~the~~ one side and swept it over to the other side and packed it there?

A. No sir.

Q. What then do you mean?

A. I mean that the river from Red Bluff down —

Q. (Int'g.) I want to ask about that sandbar?

A. I am talking about that one sandbar.

Mr. Hunt. Let him tell the whole story.

Mr. Belcher. Tell the whole story then? A. All the way from Red Bluff down those sandbars are first one one side and then on another. I think those sandbars are constantly shifting; that the river will go one side one year and on the other side the other. I suppose the

sand at Colusa is from a shifting of the sand bar above and brought down.

2. That is, that it is carried down the river?

A. Yes sir and the sand that is washed off on the Colusa side went down some where else.

2. What do you say as to the extent of that sandbar and within what time does it form.

A. In 30 years it is of 40 acres.

2. Was there any sandbar there at all in 1860?

A. The sandbar was at the Colusa side in 1860.

2. I am talking about the one on the far side of the river. I asked you if there was any sandbar there in 1860?

A. Yes sir.

2. You say there was?

A. Yes sir. There was a sandbar ~~in~~ there in 1850.

2. Was it inside.

A. Yes sir.

2. To what extent?

A. Well that was the bar side then.

2. I am talking about the side, the

east side of the river?

A. I know, the east side of the river — the north side.

Q. Where the old ferry was?

A. Yes sir.

Q. Was there a sandbar there?

A. Yes sir.

Q. Was it extensive? A. Yes sir.

Q. How large?

A. Well, it had just commenced to attack. There are cottonwood trees perhaps two feet in diameter now or three feet where the river was running in 1850 and they are on a sandbar. They are not on the original bank of the river: — And the river then was attacking this side of the river, the Colusa side — and when I speak of this side, I mean the Colusa side: — The river was attacking the Colusa side of the river in 1850 and it kept on that attack washing out the Colusa side and of course forming a bar on the other side ever since 1850; and during

A Yes sir.

Q Is the most of that filling within the last 15 years?

A Yes sir, most of it is in the last 15 years — most of it within the last 10 years.

Q You say the river is of an average breadth of 400 feet at Colusa?

A From 400 to 450 feet.

Q And when you go down about three or four miles below there is another large sand bar upon the east side?

A Yes sir.

Q Is that growing?

A That is growing, yes sir.

Q Has that grown 40 to 50 acres within the last ten years?

A No sir.

Q How large? A Oh, ten or twelve acres, perhaps — ten acres, maybe.

Q How long is it?

A A half a mile long.

Q Is it not considerably longer?

A No, I think not.

Q At what point are you speaking of?

A I am speaking of the bar opposite what you call

that time it- has changed the river about 40 acres. ~~~~~

It has taken about 40 acres from this side and changed it over ^{put} it on the other side.

Q. Well, you don't mean exactly what you say I reckon there.

A. There is a change of the sand-bar, as I told you before, that I believe the bar that ~~is~~ washed off from the Colusa side below to make some other sandbar and the sandbar, which was above, came down to make the Colusa sandbar. That is what I suppose to be the process of it.

Q. Now I ask you, to what depth has the sand filled up there?

A. The river is about 14 feet deep. Of course it- has filled the channel of the river, and then about 10 feet, above, the channel of the river would be the average of that which would make 24 feet.

Q. 24 feet deep for 40 acres?

A. Yes sir.

Q. Filled in with sand since 1850?

the China Garden, where the road strikes the river.

Q. Well, take that one. That you say is about half a mile long?

A. Yes sir.

Q. First, in regard to the whole course of the river you say, that it is a succession of sandbars upon the one side and the other and they are constantly changing?

A. Yes sir.

Q. And that is so all the way from Red Bluff down?

A. Yes sir.

Q. Was not the stream there always lower in the winter time, at Colusa?

A. Always, yes sir.

Q. And was it or not always more or less discolored in the summer?

A. No sir.

Q. Has it not been discolored ten years?

A. Discolored in the summer, I think not.

Q. The water?

A. No sir.

Q. Do you mean it is perfectly clear?

A. Well, it is so perfectly clear that you can see gravel a foot at the bottom, two

feet and a half deep - I think where it is $2\frac{1}{2}$ feet deep you can see gravel in the bottom.

Q. When you spoke of the color of the water at Colusa which you noticed, a reddish color, and you spoke of the Clear Creek mining - that was what you supposed and not what you knew, was it?

A. Well, I come pretty near knowing it.

Q. Well, did you go to Clear Creek?

A. I have been to Clear Creek.

Q. Did you go to Clear Creek then?

A. I did not but I have been to Clear Creek and I saw the color of the mud then.

Q. When ^{were} you ~~were~~ there?

A. I was at Clear Creek - I think I have not been there since - I have been there quite often, but I have not been there since 1872.

Q. Is there any red soil south of Clear Creek?

A. Yes sir; quite an amount of red soil south of Clear Creek.

Q. Is there red soil all through the County of Tehama?

A. Yes sir.

Q. Does the reddish soil give a reddish color, when it is washed in the water?

A. That is according to the quantity washed in. If there is a large quantity, it does.

Q. Well, when it is washed in?

A. If there is a large quantity I suppose it would.

Q. Well, is there red soil all along on the banks and on the affluents of the Sacramento River from the town of Red Bluff until you go down to Stony Creek?

A. Pretty much all the way there, red soil on one side or the other but it is hardly of that deep red that the water makes there that came down last year.

Q. You speak of Butte Creek: that discharges its water into the Sutter tube when it has any to discharge?

A. Into the Sutter tube.

Q. And does not discharge any at all in the summer?

A. Yes sir; into the tube in the summer.

Q. All summer? A. Yes sir

nearly all summer.

2. Into the Dutter hole?

A. Yes sir

2. Does it not all disappear in the sink - is there any water running in the summer across at the stage crossing?

A. Yes, there was all this summer.

2. Has that been so in the early years, say for the last 15 years?

A. Well, after heavy wet winter it does.

2. After a heavy wet winter?

A. Even after a tolerably wet winter it will go across there; some winters it will not; when there has not been a good rainfall it will dry up, so that there is none running across there. I was across it about two months ago and there was quite a stream there.

2. Now on the other side Butte Slough is still open - that is not on the other side; that is on this side - Butte Slough puts out from the river how far below Colusa?

A. About - between five and six miles.

2. When you go below Butte Slough to the head of Grand Island what slough puts out from the river?

A. Sycamore.

2. How large was that?

A. It is perhaps 100 feet wide at the top.

2. About 100 feet wide at the top and about what depth as it was originally?

A. 18 feet perhaps.

2. How much of a bank had that made on each side of itself?

Mr Hart. That is not a fair question.

A. It had made a bank. The length of it is about 8 miles before it entirely lost itself in the tule.

Mr Belcher. About 8 miles north?

A. Yes sir and made a bank above the tule, perhaps averaging six feet high above the tule.

2. Six feet. That then, as it came up along towards the river, is increasing in height?

A. No sir, not above the level of the water but above the level of the basin on the north side

of it.

2. Above the level of the Basin about six feet?

A yes sir.

2. Was not the head of the Dyamore, the very head of it and the bottom at the head more than six feet above the tide level?

A yes sir.

2. Well now had not it - a ^{high} ~~height~~ bank beside that?

A yes sir more than 15 feet above the level; - It is as high as the bank of the Sacramento; and the fill, back from the Sacramento River into the tide, is some 16 feet.

2. Had this Creek built for itself a high bank on each side for a distance of about 8 miles down in the tide?

A yes sir, and big oak trees growing on each bank of it.

2. And was the same true of the next slough putting out from the river below?

A, with all the sloughs putting out from the river - every slough

from Jacinto down to Knights Landing has built itself more or less of a ridge - I can answer that - a leveed ridge.

Q. That is, a ridge on each side for a bank?

A. Yes sir.

Q. Has built it up?

A. Yes sir.

Q. And running back for a considerable distance?

A. Yes sir.

Q. And was there a deposit along the banks of those sloughs every year when the water passed through them?

A. Yes sir; more or less of a deposit every year when there was an overflow. Some years there was no overflow and the water did not come out.

Q. Now you spoke of a quarter of an inch over all this tule basin on the opposite side. Had you any means of making any accurate determination or was that simply a guess?

A. I guessed it this way: at the

debouchment of these creeks you
 find nothing. In the bottom of
 the trough the basin is generally
 black adobe soil and any sedi-
 ment getting there will show
 itself. You could not put a
 sandy deposit over it without
 seeing it. Nearly all over the
 basin until yet there is some
 black adobe soil, the same soil
 that we had in 1850. And when we
 get down in the tules below, the
 black adobe soil is in the basin
 next to Colusa. There are two
 basins and the black adobe
 is next to Colusa, and, then,
 in the basin below, where there was
 tule, was also a peculiar soil;
 not quite black adobe, but you
 can tell the original soil there
 from the wash soil, and I do not
 perceive much, if any, generally
 distributed over that territory
 there; so that it is only at the
 debouchment of creeks in the
 basin trough where we find it
 and a short distance below each
 one.

2. When you speak of two basins you mean, that, below the head of the upper Sycamore — that there are two basins in that lower basin?

A. No sir. One above Sycamore Slough — Sycamore Slough cuts the basin almost in two.

2. By building a bank?

A. Yes sir. It has cut the basin almost in two making a basin above it. And the upper basin receives all the creeks from Stony Creek down.

2. What is the width of the river from the head of the upper Sycamore down?

A. It gets narrower from there to Knight's Landing.

2. How much higher is the water at the river at Eddy's or at the head of the upper Sycamore now than it was before those sloughs were stopped up in times of flood?

A. Perhaps a foot.

2. A foot. You think not to exceed a foot?

A. In the upper

Sycamore I am not certain about Eddy's.

2. The river is considerably wider at the head of the Sycamore than it is below, is it not?

A. Somewhat wider. It gets a little narrower as you go down.

2. Narrower a little below each one of those sloughs that put out?
A. Yes sir.

2. Were there any sloughs putting out on each side below the head of B slough?

A. I think not. I think the Sycamore Slough, and what you call Wilkins' Slough, are the principal sloughs that put down through there below Colusa.

2. And Bear Slough: - That is a slough lower down?

A. Well, that was a small slough.

2. It was not as large as Wilkins' Slough but it was a considerable slough?

A. Yes sir.

2. The Sacramento receives no affluent from the time that it leaves Stony Creek until it gets down to the

Yeather?

A, Not until it gets to the Yeather River.

2, Then all the material that comes from the mountains on either side will go into those basins?

A yes sir.

2, That is practically shut off now, is it not — the one on the west side?

A no sir.

2, Practically shut off — not shut off from the mountains but shut off from the river?

A No sir. I do not think it is, practically shut off from the river. I think the levees will break whenever the waters come up against them.

2, You do not think the levees ~~would~~ practically shut off it?

A, No sir. That basin at Knight's Landing is about the middle of Township 11 and the upper end of the trough is between 20 and 21 — that is ^(townships north which would be) ~~nine~~ ^{54 miles} from the head of the further end to Knight's Landing.

2, And about the same length on

the other side, starting from the same point, practically?

A. Well Chick Creek is nearly opposite Stony Creek.

2. Going down to the same point?

A. No sir. It goes below. It goes to the mouth of the Feather River.

2. That is practically the same place it is in; a little way below, three or four miles?

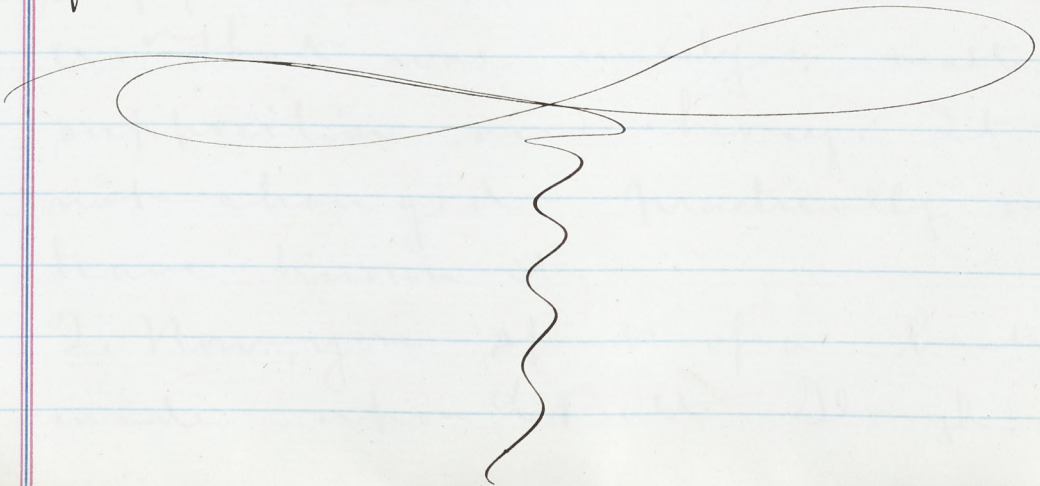
A. Yes; a few miles.

2. And the Sacramento there runs nearly east too, does it not from Knight's Landing?

A. From Knight's Landing?

2. I say from a little way below Knight's Landing, was that practically the southern end of it?—you may say at Knight's Landing it is only a little way below?

A. No sir. It is several miles from there at the southern end.



Redirect Examination of Green.

Mr. Hart: What did you mean when you said that Slony Creek changes its mouth or it was said that it had changed its mouth?

A: I explained that I think at the time.

Q: I did not get your explanation.

A: By saying that it made the land: — From the nature of the soil you could see that it was Slony Creek soil that had made the land four to five miles up and down the river, and it was believed that it had changed its mouth there back and forth making that soil.

Q: That was merely a matter of supposition?

A: That was merely a matter of supposition and theory. It has not changed practically since I have known it.

Q: Now you speak of a bank made upon the Butte Blough: that

bank has oak trees on it, don't you say?

A. Yes more I thought — yes sir; oak trees — they are large oak trees; four feet in diameter.

Q. You spoke of the high banks as banks that it has made as a matter of theory. You did not see it?

A. Well, I do not know. It is a matter of fact that they were made; but they may have been a thousand years in making them.

Q. That is what I want to understand; whether they have been made recently or not?

A. No sir.

Mr. Belcher. That is going into matter upon which you examined him first.

Mr. Hunt. I want to ask one question, possibly upon a point that he was examined about; but it is material and I will see whether it will be allowed: State the comparative amount of filling that has been made in Butte Creek within the last five years as compared with the amount of

filling that was made in it from that time and since 1850?

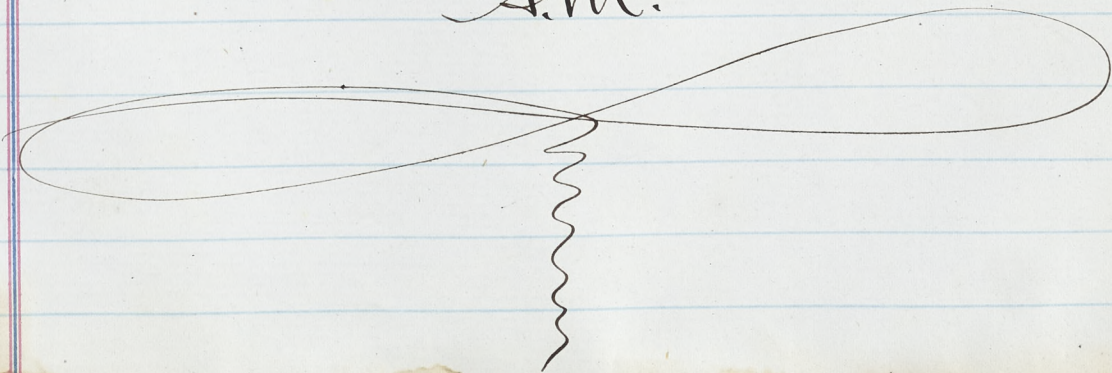
Mr. Belcher. Subject to that I did not go into it at all and he did go into it, and hence certainly it is not re-direct examination,

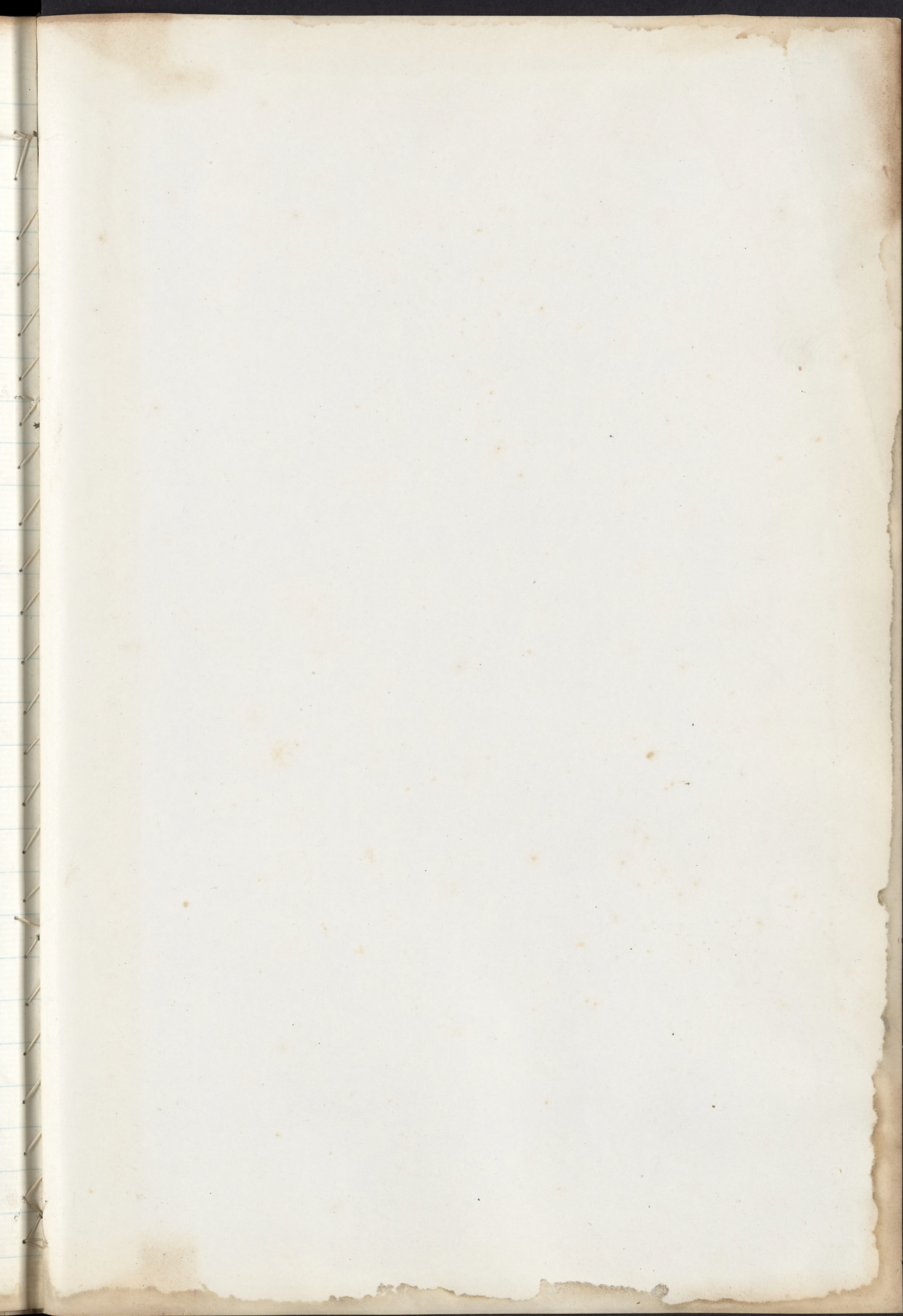
Mr. Hart. I want to show whether that is filling from natural causes or not. They say that the stream filled from natural wash and I want to show first that Butte Creek did not fill until the last four or five years and that it has filled twice as much in five years as for 20 years before.

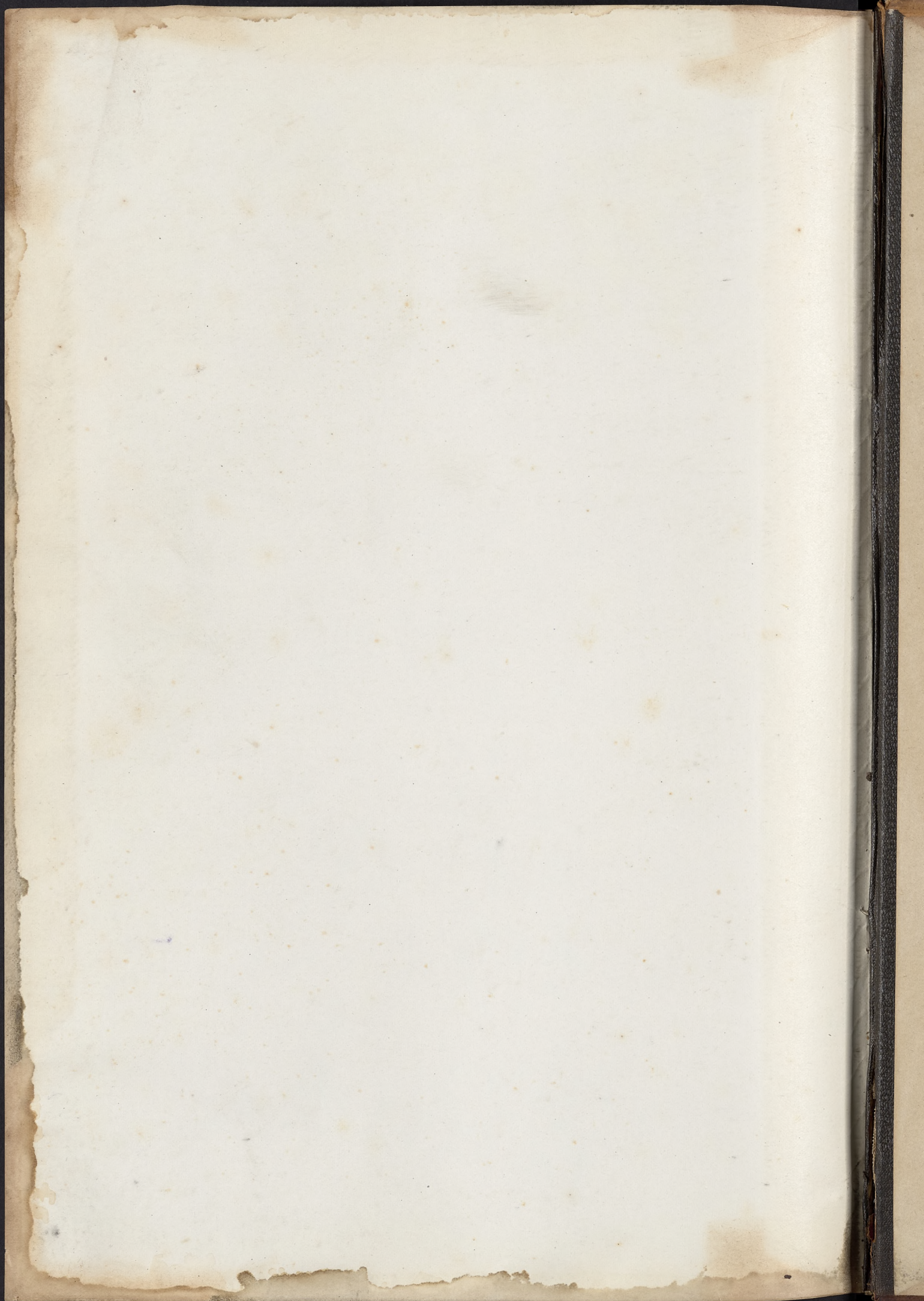
The Court You have been over that with one witness and I believe may be with more.

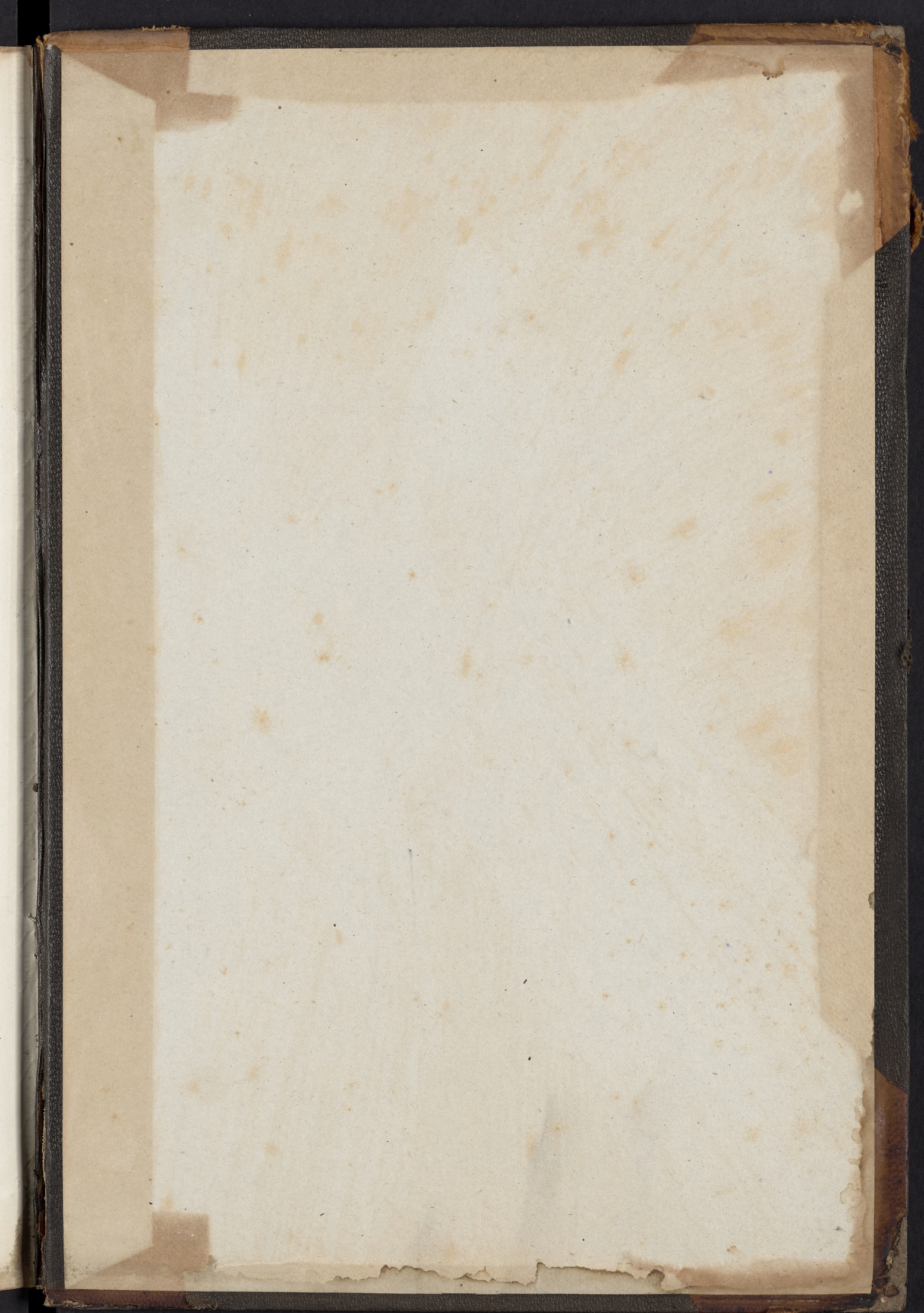
The Witness. To be short, I could not answer it anyway.

Here the Court took a recess until Monday, January 23, 1882 at 4.30 o'clock
A.M.









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